

**THE  
RAILWAY GAZETTE**

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## DIESEL RAILWAY TRACTION SUPPLEMENT

The August issue of THE RAILWAY GAZETTE Supplement,  
illustrating and describing developments in Diesel Railway  
Traction, is now ready, price 1s.

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## HISTORY OF THE BRITISH RAILWAYS DURING THE WAR 1939-45

by R. BELL, C.B.E.

with a foreword by Sir William Wood,  
President, London Midland & Scottish Railway

**THE RAILWAY GAZETTE**  
33, TOTHILL STREET, WESTMINSTER, S.W.1

## Home Railway Interim Dividends

AS was generally expected, the boards of the controlled railway undertakings at their meetings last week decided to pay interim dividends on the junior stocks at the same rates as those of a year ago. Thus, holders of G.W.R. consolidated ordinary stock are to receive 2 per cent. for the half-year to June 30; for the whole year the payment was made up to 5 per cent. On L.M.S.R. 4 per cent. guaranteed stock, 4 per cent. preference stock, and 4 per cent. preference (1923) stock the full rates of dividend are declared. Payment on the ordinary stock last February was 4 per cent. for the full year. On the L.N.E.R. stocks 1 per cent. is to be paid for the half-year on the 4 per cent. second preference stock which for the full twelve months of 1945 received 3½ per cent. The Southern Railway is paying at the full rate on the preferred ordinary stock, as it did last year; the deferred ordinary stock received 2 per cent. for the whole year. London Transport "C" stockholders again are to receive 1½ per cent.

\* \* \*

## The First Winter of Coal Nationalisation

With the Act nationalising the coal-mining industry on the Statute Book, there has been no improvement in the national coal position. It is now more serious and more disturbing in its implications than ever. In the House of Commons last week, the Minister of Fuel & Power admitted that the indications were that the country will start the winter with coal stocks 5,000,000 tons below the safety margin, that stoppages of industrial undertakings, because of fuel shortages, will be likely during the winter months, and that his recruitment programme for the pits had failed. He made a strong appeal to the miners to make up the deficit, but he could not disguise the gravity of the situation. What emerged very clearly, however, was the fact that the inducement of producing coal for the State, instead of for private enterprise, had not proved as attractive to the pit workers as has been suggested by advocates of nationalisation. There is no reason to suppose that the experience of any other industry would be dissimilar to that of coal.

\* \* \*

## More G.W.R. Oil-Burning Locomotives

Mr. Shinwell hopes to save 3,000,000 tons of coal a year by the use of fuel oil, and he said that some time ago negotiations had been commenced with industrial concerns, and particularly with the railway companies. He paid tribute to the Great Western Railway for its enterprise and assistance in this matter, and said that already it had effected the conversion of ten locomotives, and was in process of converting about another 40. The G.W.R. stated last week that 25 of its "Castle" class engines are to be converted to oil burning at Swindon Works, and will be used on main-line services between Paddington, Bristol, and the West of England and South Wales. It has already converted ten freight locomotives to oil burning, and these are in service in South Wales. Eight more are to be converted. One locomotive of the "Hall" class has been converted and is to be brought into service shortly on express passenger service between Paddington and Bristol. The burning of fuel oil would be more expensive, Mr. Shinwell admitted, but he added that negotiations were proceeding with the Treasury on the question of duty, and although there were difficulties on matters affecting inland revenue, he had reason to believe that the objections would be overcome.

\* \* \*

## Electric Traction as a Coal Saver on the Southern

Mr. Shinwell did not deal in the debate with another form of railway working which has been in operation in this country for many years, and which results in a considerable net economy in the use of coal. The Southern Railway gave some details last week which showed that if it had to run all its trains by steam locomotives instead of many of them by electric power, it would require 400,000 tons of coal more each year. The size of the economy achieved by the Southern Railway is related to the fact that it has the greatest suburban electric railway system in the world, and to the intensive operation of some of its lines for the daily movement of people living outside London into the City and West End for their work. An

additional factor lies in the main-line electric services to such places as Brighton, Eastbourne, Hastings and Portsmouth. In planning for the future, the Southern Railway undoubtedly will consider adding to its present electrification system.

### Continued Fall in Home Rail Traffic

Although the traffic receipts of the four main-line railway companies and the London Passenger Transport Board for the four weeks to July 14 include the revenue from the increase in rates and charges which became effective on July 1, they showed a decline of £2,176,000 at £29,926,000. Merchandise revenue at £8,011,000 was lower by £1,155,000, reflecting the loss of Government traffic. Passenger receipts were down by £1,153,000 at £17,854,000. There was a small increase of £132,000 in coal and coke traffic at £4,061,000. The following table summarises the position for the four weeks and also for the first 28 weeks of the year. The comparative figures for 1939 are also included:—

FOUR WEEKS ENDED JULY 14, 1946					
	1946 £000	1945 £000	+ or - £000	Per cent.	1939 £000
Passengers ...	17,854	19,007	-1,153	-6.4	9,274
Merchandise ...	8,011	9,166	-1,155	-14.4	4,488
Coal and coke ...	4,061	3,929	+ 132	+ 3.2	2,481
Total ...	29,926	32,102	-2,176	-7.2	16,243
AGGREGATE FOR THE TWENTY-EIGHT WEEKS OF THE YEAR					
	1946	1945	+ or -	Per cent.	1939
Passengers ...	103,571	108,215	-4,644	-4.4	52,507
Merchandise ...	56,003	71,089	-15,086	-26.9	29,464
Coal and coke ...	26,204	26,197	+ 7	+ 0.2	18,756
Total ...	185,778	205,503	-19,725	-10.6	100,727

Total traffic receipts for the year at £185,778,000 are now £19,725,000 less than for the corresponding period a year ago.

### Overseas Railway Affairs

While the larger British-owned Argentine railways show improved aggregate results for the first three weeks of the current financial year, Entre Rios and Argentine North Eastern traffics for the period are down by ps. 75,900 and ps. 13,200 respectively. The Buenos Ayres Great Southern has gained ps. 756,000 in the fortnight ended July 20 and is now ps. 1,287,000 ahead of the previous year. In the same fourteen-day period the Buenos Ayres & Pacific has recorded an increase of ps. 664,000, the Central Argentine of ps. 409,465, and the Buenos Ayres Western of ps. 132,000. Midland Uruguay receipts for the 52 weeks to June 30 were £223,623, an increase of £6,088, but North Western of Uruguay receipts for the same period, at £66,462, showed a decrease of £676. Results for the week ended July 20 are compared in the following table:—

	No. of week	Weekly traffics	Inc. or dec.	Aggregate traffics	Inc. or dec.
Buenos Ayres & Pacific*	3	2,250	+ 322	6,488	+ 744
Buenos Ayres Great Southern*	3	3,605	+ 444	10,247	+ 1,287
Buenos Ayres Western*	3	1,175	+ 48	3,423	+ 158
Central Argentine*	3	3,165	+ 154	9,163	+ 404
Canadian Pacific	29	1,291,750	-273,500	38,797,750	-4,648,500

\* Traffic returns in thousands of pesos

Canadian National receipts for June were £7,900,750, a decrease of £2,013,500 on the preceding year. The decrease on the aggregate from January 1 was £6,928,000, comparing with a decrease on the Canadian Pacific for the same period of £3,819,000.

### Swindon Carriage Building Dispute

We understand that very little progress has been made towards settling the dispute between the National Union of Railwaymen and the National Union of Vehicle Builders, which has prevented any new passenger coaches being built at Swindon this year, representing a potential loss of 150 coaches. The present position is that the dispute has been referred to the Disputes Committee of the Trades Union Congress for consideration, and it is earnestly to be hoped that it will reach a decision at an early date. Meanwhile, we learn that an almost identical dispute between the Amalgamated Engineering Union and the National Union of Vehicle Builders as to who should build the bodies of passenger road coaches is holding up the production of replacement vehicles which are urgently required.

### Chilean Government Acquires Nitrate Railways

The board of the Nitrate Railways Co. Ltd. announced on July 24 that cable advice had been received of a Decree of the Chilean Government whereby the Chilean State Railways take possession of the Nitrate Railways system, thereby implementing the Expropriation Decree of August 28, 1941. A commission appointed by the latter Decree has made a valuation of ps. 79,383,877 (£783,265 at the "export" rate of ps. 101.35 to the £), and the company will receive as full indemnity State Railways currency bonds of that nominal amount, carrying 4 per cent. interest and 2 per cent. amortisation per annum. The service of these bonds is subject to the necessary funds being provided for in the Chilean national budget. The compensation due to the whole of the Chilean staff and workmen under the social laws of the country, and other commitments, will have to be met by the company. The Nitrate Railways Co. Ltd. was formed in 1882 to operate 387 miles of lines (including sidings) under various concessions in the nitrate district of Tarapaca. One of these concessions, for the line from Iquique to La Noria, reverted to the government on July 27, 1936, but the line has been operated by the company under a rental arrangement. Other concessions would have expired in 1957 and 1974, but that from San Pablo to Lagunas was held in perpetuity. The issued capital of the company is £3,475,430.

### The World's Longest Non-Stop Run

The number of runs—133—which are scheduled daily over distances exceeding 100 miles without intermediate stop, affords gratifying evidence of the rapid recovery in the speed and amenity of long-distance travel in Great Britain which has taken place already since the war. Despite the developments in motive power and operating methods that have taken place during the last decade in the United States, and especially the widespread use of diesel-electric motive power on the long-distance streamline trains, the L.M.S.R. still retains the blue riband with its five daily non-stop runs between Euston and Carlisle, ranging in length from 297.7 to 301.1 miles. By comparison, the longest actual non-stop run in the United States that can be traced is over the 286 miles between Carlin and Reno, Nevada, made by the "City of San Francisco" diesel-hauled streamliner over Southern Pacific metals. American operating rules call for change of engine crews at all divisional points, and non-stop runs seldom exceed 200 miles. The post-war total of runs exceeding 200 miles has grown to 9 daily, and there are 42 of over 150 miles, and 133 of over 100 miles.

### British 100-Mile Runs in 1946

Of the daily runs in Great Britain exceeding 100 miles in length, 76 are made by the L.M.S.R., 36 by the L.N.E.R., and 21 by the G.W.R.; these figures compare respectively with 78, 58, and 24 in the summer of 1938. On the G.W.R. the longest journey nominally non-stop is that of the "Cornish Riviera Limited" over the 225.5 miles between Paddington and Plymouth, though this run usually requires a stop in each direction at Newton Abbot to attach or detach an assistant locomotive for the steep gradients in South Devon. Similarly, on the L.N.E.R., the "Night Scotsman's" run of 162.8 miles from Grantham to Newcastle includes a momentary stop outside York to change engine-men. An increasing modern tendency is to cut out the stops of passenger trains, where possible, at important junction stations, such as Crewe, Carlisle, York, and elsewhere, to reduce the congestion caused by unnecessary platform occupation, and to keep the traffic moving, even though conditions do not as yet permit a return to the high overall speeds which such non-stop running normally should make possible. Nevertheless, an analysis of the non-stop schedules of the first post-war summer shows a considerable increase in speeds over those of 1945, on the G.W.R. and L.N.E.R. in particular; on the G.W.R., for example, the run between Paddington and Bath can now be made at 55.8 m.p.h., and between Paddington and both Taunton and Exeter at 54.8 m.p.h.; the L.N.E.R. has runs from Grantham to Kings Cross and from Grantham to Darlington at 54.1 m.p.h.

### Jointly Operated Bus Services in Exeter and District

The Exeter City Council and the Devon General Omnibus & Touring Co. Ltd. have reached agreement on proposals for the joint operation by the parties of existing and future bus services in the City and surrounding districts. The area envisaged stretches from Sandford and Silverton in the north to Exmouth and Cockwood Bridge (beyond Starcross) in the south; and from Tedburn St. Mary in the west to Rockbeare in the east. The proposals are subject to the approval of the Regional Traffic Commissioner and effect will be given to them as soon as possible after this is obtained. The operators will preserve their separate identities and assets, and, while they will continue to manage their own establishments, they will together set up a joint committee to deal with public passenger services in the area. Foremost among the duties of the committee will be the development of new services and additional transport facilities. The joint committee will have behind it the combined resources of both undertakings, and the changes which are contemplated should prove of substantial benefit to the travelling public throughout the area concerned. The Devon General undertaking is an associate of the G.W.R. and the Southern Railway, and is one of the B.E.T. group.

### Aluminium 70-Ton Hopper Wagons

We publish elsewhere in this issue an illustrated article showing recent American developments in the use of aluminium for large-capacity hopper wagons. Earlier examples had taken the form of two hoppers mounted on one underframe, but in the latest design, which has been developed by the American Car & Foundry Company, and of which 25 examples are now running on the Missouri Pacific Railroad, there are three hoppers, so disposed that with but a slight increase in length and tare, a considerably greater volume of bulk commodities can be accommodated. This greater volume is expected to make the wagons of greater service and to increase the possibility of arranging for return loads; the change from two hoppers to three, each with separately controlled doors, will enable unloading to be done more quickly and more efficiently. The aluminium alloy used has a tensile strength of 38,000 lb. per sq. in., with the result that the thickness of the alloy components is practically the same as if they were of mild steel. One of the advantages of the aluminium alloy, apart from the great saving in deadweight, is the expectation of a much longer life and reduced maintenance. Resistance to corrosion is high, and the particular alloy used is not susceptible to the action of high-sulphur coals.

### A Judge and the "Stop and Proceed" Rule

We report elsewhere in this issue the judgment delivered by Mr. Justice McDermott in the Ulster High Court, awarding damages to a passenger involved in the accident near Ballymacarrett Junction, Belfast & County Down Railway, on January 10, 1945, when a collision occurred under the "stop and proceed" rule. His Lordship held both the driver and the railway company guilty of negligence, the latter because other methods were practicable and could have been used, leading to the inference that the company had not discharged its obligations to the travelling public. This judgment is of considerable interest, and, if finally upheld, we imagine it will have far-reaching effects. If persons are to come forward and claim successfully that negligence has existed because a railway has not adopted some signalling apparatus or operating method that other lines may have put into use, or which some authorities may regard as being better, a wide field will be opened for argument, and it will become a puzzling task in many cases to say what is reasonable care, whether it was displayed in the equipment or methods used. Some very uncomfortable headaches are likely to arise if ever this procedure becomes fashionable.

### A Notable Shay Geared Locomotive

Elsewhere in this issue is illustrated and described a new Shay geared locomotive, which went into service recently on the Western Maryland Railroad. "Shays" are comparatively rare engines, even in North America, in which the type is understood to have originated. It is suited to a specialised work; but, given

the onerous operating conditions which are the normal background for a "Shay," there is nothing to beat it in its own field. The demands made on the latest addition to this select company are such that we in this country find it difficult to appreciate the true significance of their fulfilment. Here is a locomotive weighing, with tender, 144½ tons, little more than an average modern 4-6-0. It is required to haul, on the level, loads up to 5,560 tons. On a grade of 1 in 14, with occasional stretches of 1 in 10, it can handle 156 tons at 10 m.p.h. On a grade of 1 in 10 it is doubtful whether many ordinary locomotives would be able to move even themselves, let alone a load. But the Shay machine, by virtue of its gearing (the ratio in this case is 2.45 to 1) takes this in its stride. At the maximum engine speed of 377 r.p.m., the translational speed reaches the creditable figure of 22 m.p.h. It is a pity that one must go to North America to see these remarkable performances, but there would be little work for them in this country except in quarry and colliery sidings, where naturally there is no demand for so large a machine, as no long-distance running is involved.

### Rehabilitation of N.S.W. Railwaymen

THE policies decided on by the British railway companies for the training and re-establishment of employees returning from the Forces were described in our December 7, 1945, issue. Somewhat similar principles of interviewing and subsequent instruction are now being applied in New South Wales. Approximately 6,000 New South Wales railwaymen enlisted in the defence forces during the war. Some time before the war ended it was realised that many difficulties would arise in re-establishing them in the department on their return to civil life. As a consequence, in 1944, an officer was appointed to interview all ex-servicemen when they reported for duty with the department. After doing what he could to help them, he referred them to the branches from which they enlisted.

Soon after hostilities ceased, it was recognised that new methods were necessary to meet the situation that would arise when large numbers of men returned, and, as a result, a Rehabilitation Officer was appointed within the secretariat. This officer decentralised the organisation; an officer was appointed in each branch and charged with the responsibility of receiving the ex-serviceman when reporting for duty, making all possible arrangements for him to be rehabilitated into railway life, and seeing that all cases requiring special consideration were referred to the Rehabilitation Officer. Special arrangements also were made for the reception of prisoners of war. With the help of officers who had charge of prisoners of war convalescent camps, the Rehabilitation Officer interviewed these ex-servicemen before they reported to their branches, to ensure that their claims for special attention were met.

The problems associated with the rehabilitation of incapacitated and disabled employees, irrespective of whether the originating causes were attributable to the hazards of peace or war, were visualised by the department some time before there was any prospect of a sudden cessation of hostilities. As a result, an officer was selected to investigate the problem involved, and by the time the war had ended much useful work had been accomplished. This included a list of available positions in the department in which certain disabilities would not prevent satisfactory employment. This officer was subsequently appointed Rehabilitation Officer. The initial re-establishment of a disabled or incapacitated railwayman, however, was not regarded as the end of the department's rehabilitation work; a system was devised whereby his progress is reviewed from time to time with the object of enabling him to receive promotion despite his handicap.

The promotion rights of the railwayman on war service were preserved during the whole period he was absent from the department. This has meant, in the majority of cases, that upon return to the department he has been entitled to an advanced position carrying a higher rate of pay than that occupied by him at the time of enlistment. This, in turn, has involved not only refresher courses, but also instruction to enable him to take up the advanced position to which he has become entitled. For this purpose special schools were established at the Railways Institute, Sydney, to meet the educational requirements of ex-servicemen. Experts from various

branches were selected as instructors, and the classes are so arranged that the student is able to obtain the necessary tuition in the most favourable circumstances.

Provided he applies himself to his studies and attends the classes regularly, he is paid at the rate for the position to which he became entitled during his absence, from the date that he resumes duty in the department. If he is a country resident, in addition he is given a special allowance during the period of his attendance at the rehabilitation school in Sydney to cover his away-from-home expenses. Although a period is set down in which the student is expected to complete his studies, sympathetic consideration is always given to an extension, where the circumstances warrant it, to ensure that no ex-serviceman will become disheartened or embarrassed in his efforts to re-establish himself in the department.

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### Improving U.S.A. Freight Services

ON May 18 our American contemporary, the *Railway Age*, issued its seventh Freight Progress Annual Number. On the previous day President Truman signed an executive order taking over possession, control, and operation of the U.S.A. railways, but 24 hours later he announced that the threatened strike of locomotive drivers and trainmen had been postponed. The Government had purchased peace in the railway industry by giving the men more liberal treatment than an emergency board proposed, after going into the merits of the trade unions' claims. The railways now seek to recoup the cost of the higher wages by an increase of 25 per cent. in freight rates. If the Interstate Commerce Commission does not approve the advance, the railway situation will become critical, as traffics have declined sharply since the defeat of Japan.

During the first 20 weeks of this year the number of wagon loadings was about 10 per cent. below the forwardings in the corresponding period of 1945. The downward trend of ton-miles was twice as steep because wagons are not carrying such heavy loads as they did in wartime, and are making shorter journeys. Freight revenue consequently decreased by 20 per cent. for the two months of January and February—the last period for which full details are to hand. Total operating revenue for the two months was down 17 per cent., whereas operating expenses were reduced by only 9 per cent. The operating ratio rose to 77 per cent. from 70 in 1945. The March and April figures are bound to be worse, so that a report on freight progress would be out of season if it did not look beyond the present chaotic phase to a future period of settled development in trade and industry.

Taking a long view, the U.S.A. railway managements have set their minds on creating traffic by every means in their power. The first essential is to improve freight services. Many lines have succeeded already in restoring peace-time schedules which were abandoned during the war. Special attention is being paid to the reinstatement of overnight fast freight trains, intended primarily to carry less-than-wagon-load consignments between large cities. Goods are accepted for these trains in the evening and delivered next morning at places 500 miles distant. The Pennsylvania and Baltimore & Ohio run overnight trains in both directions between New York and Pittsburgh. The New York Central has given a similar service between New York and Buffalo, 436 miles away. This is being superseded by a new dusk-to-dawn "Pacemaker" service, with specially-built wagons equipped, like passenger coaches, with high-speed bogies and twin-cushion draft gear. These wagons, painted in distinctive red and grey colours, will travel from New York to Buffalo in 10 hours at an average overall speed of 43.5 miles an hour. The New York Central plans to install 500 wagons of this type, for working in solid trains on its own system, so as to "clip a business day from regular freight delivery time at many mid-western cities."

Other overnight freight services radiate from Chicago, St. Louis, Los Angeles, and San Francisco. Longer transit times are also being reduced substantially. A cut of 24 hours has been made in the schedules between Chicago and the Pacific Coast. Second morning delivery is given to merchandise between New York and points as far west as Fort Wayne, Indiana. Perishables from Florida will be delivered in future to the New York market on the third morning after despatch, instead of on the fourth day. Even coal trains from the West Vir-

ginia mines will reach tidewater in four hours less time than they used to take.

These arrangements for accelerating freight trains should help the commercial representatives of the railways to make a bold bid for less-than-wagon-load traffic which was lost to road competitors before the war. The gross revenue earned by all carriers from the transport of small-lot consignments is estimated at \$3,000,000,000 a year. Excluding payments from the Railway Express Agency, freight forwarding agents, and the Post Office for the handling of parcels post, the railways' share of that huge business was \$374,000,000 in 1944 and \$386,000,000 in 1945. These receipts represented little more than 5 per cent. of the railways' freight revenue, but were contributed by no more than 1.5 per cent. of the total tonnage passing. The less-than-wagon-load traffic thus bears high rates and, though it is expensive to handle, is well worth having. So the railways are launching a campaign to increase their carryings. Apart from canvassing being intensified, facilities will be smartened up and "railheads" will be established for the distribution of goods by road motor vehicles.

The railways have drawn up large programmes for improving their permanent way, signalling and train control arrangements, marshalling yards, and freight warehouses. Some of these schemes are being delayed because materials are hard to obtain for the time being. Building restrictions, imposed recently by the Civilian Production Administration, confine the use of certain materials to the building of houses. Structural work thus proceeds slowly, but, in spite of the scarcity of steel, modern steam locomotive power is being provided and diesel-electric units are being introduced somewhat freely for freight haulage. At least 20,000 new wagons are in process of delivery to various railways and in all probability further orders will be placed on a liberal scale. In the meantime traders are being urged through the Shippers' Advisory Boards to co-operate with the carriers in making the best use of the existing rolling stock by loading every wagon to capacity and by releasing wagons promptly at destination.

When the next Progress Annual appears, the railways should be equipped to handle expeditiously a heavier business than they enjoyed before the war. They are busily engaged in a search for new sources of traffic, many lines having special agencies concerned with industrial, agricultural, and forestry development. In a picturesque phrase the *Railway Age* describes these measures as "beating the bushes for freight." Twelve months hence it will be interesting to see how much fresh tonnage has been originated.

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### Future of the Jamaica Railway

RECENT proposals for the future of the Jamaica Government Railway have advocated such extreme measures as selling it for a nominal sum, or scrapping it entirely. A report on transport in Jamaica by Mr. C. E. Rooke, C.M.G., M.Inst.T., which has recently been published and is summarised elsewhere in this issue, rejects both suggestions as prejudicial to the economic welfare of the island, and proposes instead the gradual closing of certain lines and the use of the assets thus made available to promote more efficient working of the remainder. Complete closure of the railway is regarded as an event too far ahead to be within the scope of practical discussions at the moment, and one not to be considered until adequate provision has been made for dealing with the greatly increased traffic that would be diverted to other forms of transport. Mr. Rooke refers to the "somewhat astonishing suggestion" in the previous Benham report on road transport that the railway should be sold to private enterprise for 6d., and opposes the idea of sale on the grounds that it would lead to a repetition of past events. The previous history of purchase by the Government, sale to private enterprise, and re-purchase ten years later, was told in an article on the centenary of the railway in our November 16, 1945, issue. Two illustrated articles in our January 5 and January 12, 1945, issues gave a general description of the system, its traffics, and its economic problems. All three contributions referred to were by Mr. H. R. Fox, B.Sc., M.Inst.C.E., General Manager of the railway.

Mr. Rooke's report deals at length with the unsatisfactory accounting system and the administrative handicaps of the railway, both arising from its treatment on the lines of a

Government Department, and concludes that "the deliberative processes of Government administrative machinery are not geared up to production and sale of transport." Such criticisms are supported by some startling examples from Mr. Rooke's personal experience while in Jamaica. He mentions a minute that took six weeks to reach him, and a report from the General Manager on serious shortages of certain stores that went without any final reply for some three months. The procedure with the annual estimates is also cumbersome, sanction for twelve months' work on special expenditure (including some renewals) not being received until half-way through the year, after which full details of plans, estimates, specifications, and a requisition have to be submitted to the Secretary of State for the Colonies. Mr. Rooke observes that "no recipient of such niceties would have the qualifications or knowledge to comment or criticise on such matters as construction of metallic circuits, strengthening of track on piers, and conversion of freight wagons to coaches. The defence of this folly was that 'Colonial Regulations said so.'" Passages such as this in the report deserve wide reading and study at the present time as examples of the pitfalls in Government administration of commercial enterprises. Mr. Rooke's proposals for giving the General Manager powers to manage the railway on ordinary business lines, and for reorganising the railway accounting system, are dealt with fully in our summary of the report.

### London Transport Permanent Way

THE resumption of work on various sections of the New Works Programme of the L.P.T.B., the L.N.E.R., and the G.W.R. makes of topical interest the current standards of track of London Transport, which are different in some details from those prevailing before the outbreak of the recent war. With the exception of the Western Extension of the Central Line, all the new permanent way work will be laid in accordance with the modern standards of the board's railways, with 95-lb. per yd. bull-head rails, with welded joints, in lengths determined by the positions of block joints for track circuiting and by conditions of curvature and gradient. The maximum length of rail as laid is limited to 300 ft. by the conditions obtaining in the depots where the rails are welded by the flash butt process, and by considerations of transport and handling. On new tracks the rails are held in chairs fixed to the sleepers

by coach screws, and in the open the B.S. joint chair is in use on 12-in. joint sleepers.

The conductor rails, supported in porcelain insulators, are of 130-lb. rectangular section in tube tunnels and 150-lb. flat-bottom section in the open. Their chemical analysis must not show more than 0.06 carbon, 0.05 silicon, 0.03 sulphur, 0.04 phosphorus, and 0.10 to 0.20 manganese. The outer conductor carries the 600-volt positive current and the middle conductor the negative return traction current. They are laid in 120-ft. welded lengths and are site welded into lengths not exceeding half a mile. The bonding of the conductor rails consists of bare copper bonds under the flanges of the F-B. type, and at the side of the rectangular type.

The formation of the track in tubes is so designed that day-to-day maintenance for line and level is reduced to a minimum by the rigid concrete support of the sleepers. Cast manganese crossings are in general use on the main lines, as experience has shown that these are economical under the arduous conditions of multiple-unit electric traction on the board's railways. The easiest curves possible are used through junction work, up to "F" switches with 1 in 20 crossings, but, because of site conditions and the necessity for rapid clearance of trains from the track circuits at junctions, the use of "C" type switches with 1 in 9 crossings is comparatively frequent. For plain line, medium manganese rail is adopted as standard. The method of end-to-end rail welding was described in *The Railway Gazette* for February 11, 1938, page 271. London Transport has two welding plants, one established at the Lillie Bridge Depot, and the other a portable plant which can be moved from place to place. Both are of the flash-butt type and include normalising equipment. Permanent way in the new tube sections is not laid until the rails, sleepers, ballast, and other materials can be run in from the ends. The materials have been accumulated at several main depots where the rail welding has been done; for the Metropolitan Line (or North-West London) works the rails were welded at Lillie Bridge. Temporary depots have been established at Wellington sidings, Highgate, for the North London scheme, and at Drapers Fields, Leyton, for the North-East London works.

The Western Extension of the Central Line is being undertaken by the Great Western Railway, and the track is being laid according to that company's standards, with 60-ft. rails supplied by the G.W.R. and welded by London Transport.

### Publications Received

**The L.M.S. at War.** By George C. Nash. London, 1946: The London Midland & Scottish Railway Company, Euston Station. 10 in. x 7½ in. 88 pp. Illustrated. Price 5s.—In the first four days of September, 1939, the L.M.S.R. carried approximately half a million child evacuees from London to other parts of the country; at that time the ordinary summer services were still running, and so for a few days the company's stations presented a simultaneous picture of the peacetime world and of the new conditions of life that were to be imposed for a duration at which few then cared to guess. This book tells how the L.M.S.R. adjusted itself to the new circumstances, for which it was equipped by possessing "the highest degree of maintenance and operating efficiency it had ever attained," and how it emerged from the war with records of achievement to which the devotion to duty of countless members of the staff, both men and women, contributed the major share.

Mr. George C. Nash (G.C.N. of *Punch*) makes the adventures of the war years an absorbing and dramatic narrative, with just sufficient statistics to enable the reader whose attention is engaged by individual

achievements and acts of heroism to appreciate the magnitude of the issues involved. In addition to numerous half-tone illustrations, the book has a series of full-page colour plates by Mr. Norman Wilkinson, O.B.E., P.R.I., of which two of the most dramatic show the bombing and machine-gunning of an L.M.S.R. express near Bletchley, and an air raid on a marshalling yard near Willesden. The book will be dealt with at greater length in our issue next week.

**Timber Pests, Their Origin, Prevention and Cure.** The Timber Development Association Limited, 75, Cannon Street, London, E.C.4. 7 in. x 5 in. 60 pp.—This useful little work is divided into four parts: (1) Wood-destroying Fungi, (2) Stains on Timber, (3) Insects Attacking Timber, and (4) Marine Borers. There are also eight appendices and a bibliography. In Part 1 the fungus is compared with a cabbage as representing plant life generally, and it is pointed out that one feeds on and breaks down wood just as the other does earth; they will, however, not grow in very dry wood or earth respectively. The main difference is that a cabbage requires air, whereas a fungus does not; in fact, it is lack of air that encourages its growth, as in dry-rot. Conditions favourable to the decay in timber are enumerated and the characteristics and methods of eradication

of the several fungi known as dry-rot are dealt with exhaustively. There are excellent illustrations of the effects of rot in buildings and also of the various timber-attacking insects and their depredations. Methods of ensuring adequate under-floor ventilation and prevention of rising dampness in partition walls as a result of a defective damp-proof course are also illustrated. The whole work is valuable and instructive.

**The Early History of the Motor Car, 1769-1897.** By R. W. Kidner. Chislehurst, Kent: The Oakwood Press, 30, White Horse Hill. 7½ in. x 4½ in. 59 pp. + viii pp. plates. Price 6s.—This is a useful summary of the development of mechanical traction for road transport, and contains thumb-nail sketches of almost every type of road vehicle built between the dates indicated in the title. The period covers the purely historical days before mechanical road transport came into practical use, and the historian may find it useful as a chronology. Incidentally, the author appears to be in considerable uncertainty about the spelling of Thornycroft. A companion booklet is promised, dealing with the period from 1898-1946. These two will form a portion of a short history of mechanical traction and travel, of which Parts 3 and 4 are to cover the railway locomotive.

## LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

## L.M.S.R. Locomotive No. 20002

32, Russell Road,  
London, W.14. July 25

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR—The unique technical and educational value of the few historic locomotives that have been preserved in Great Britain, forming tangible evidence of the development of an industry for which this country has never been surpassed, was probably never more widely appreciated by the public than at present. I need hardly point out, therefore, how much poorer we should be if the indiscriminate scrapping of all outworn locomotives, whatever their history, had been allowed in all these cases.

Your readers, therefore, may share my regret on hearing the report that the senior passenger locomotive in this country—with no less than eighty years' service behind it—is now standing in Derby Works and is being considered for scrapping. I refer to old L.M.S.R. No. 2 (now 20002) which was built to Mr. Kirtley's designs in 1866 and is a remarkable example of the type of locomotive construction commonly used in the 1860s. From the viewpoints of antiquity, constructional details, and the known wide public interest in this engine (as evidenced by the numerous published articles referring to it in the railway press), may I utter this appeal that such a wonderful locomotive be preserved? I have certain information that the difficulty of the space required to house it (which so often has militated against the preservation of a locomotive) can be solved very happily in this case, if the necessary sanction can be given for it to be saved.

A locomotive, which, like your journal, has such a notable record of public service behind it, I hope will appeal to you as an object worthy of the support of your readers in an attempt to prevent its destruction. The engine is the last of its kind, and quite irreplaceable.

This letter has the full knowledge and support of the Council of the Stephenson Locomotive Society, the senior body interested in the historical aspects of locomotive engineering.

Yours faithfully,

W. O. SKEAT

[Since this letter was received the L.M.S.R. has announced its plans for the continued preservation of six historic locomotives, as reported on page 128, the future of which had been in doubt on account of accommodation difficulties.—Ed., R.G.]

## Oil-Burning Experiments in Palestine

P.O. Box 546,  
Haifa, Palestine. July 9

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—In your issue of June 14, page 648, your Palestine correspondent is mistaken as to the Palestine Railways locomotives having been converted to oil firing "without prior planning or design." The facts are: Of 50 of its Baldwin locomotives which formed two-thirds of its immediate pre-war standard gauge holding, a considerable number was equipped, when delivered new by the maker, with complete oil burning equipment of conventional type; they had to be converted here to burn coal. One, however, was operated on *mazout* at the time, in order not to miss a good opportunity of acquiring the technique, in 1921.

Quoting the Administrative Report for the year ending December 31, 1929, of which copies go to the Colonial Office and the Department of Overseas Trade: "One 4-ft. 8½-in. gauge Baldwin locomotive has been fitted with oil-burning equipment for experimental purposes, but it is too early to express any opinion on the results." This second trial was, just as were the Great Western Railway experiments reported in your September 14, 1945, issue, "in co-operation with the Anglo-Iranian Oil Company" through the Shell Company. A further coincidence, too, was that Mr. MacFarlane, who supervised the first G.W.R. trials, did the same thing here some fifteen years earlier. Operation was maintained for the greater part of a year, so that it was even possible to form ideas as to what maintenance would mean; goods and passenger conditions were tried out. When the railway and the oil company's representatives were satisfied, the engine reverted to coal, after "as-made" drawings had been prepared, as the standard for future conversions, should occasion arise.

Thus, quite contrary to the story your correspondent has gathered, very few railways, I imagine, could have been better fitted to go over successfully to liquid fuel from the point of "prior planning." I am sure Major Cotching, the C.M.E.

at the time, and now of the Iraq State Railways, must be wondering where it came from.

Equally, I am afraid, reluctant as one is to divest a good story of its dramatic qualities, there was no question of "coal supplies being cut off without warning." The first conference with a view to converting 12 engines was in the summer of 1940. Shipments of coal were arriving in the spring of 1942. "Planning and design" was going on for twelve months before the first engine was turned out in April, 1942; but this was not in connection with the conventional system with its minor modifications, tried and proved, but of a hybrid kind, and was to permit the use of coal or oil, or both, and which was eventually abandoned.

Yours faithfully,

A. L. JONES

## The Late Mr. Roger Gibb

Kenya & Uganda Railways & Harbours,  
General Manager's Office,  
Nairobi, July 24

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—I should like to pay my tribute to the late Roger Gibb. I was associated with him for many years. First in England on the Great Western Railway in connection with his work on the rating aspect of the 1921 Act, and later in Africa, when he was Chairman of the Rhodesian Railway Commission, and again in 1932, when he was appointed to report on railway rating questions in East Africa. He was a worthy son of a famous father, but was not content to rely on his father's fame or influence. He was courageous, unorthodox, and not prepared to accept arguments based on precedents.

Every problem was to be examined afresh and he was convinced that senior railway officers must discard many axioms based on the old monopolistic conditions if railways were to hold their place in the modern world. Some of his conclusions were open to argument, but he was a doughty opponent and it was not always easy to argue with him. He never courted popularity, but he was a staunch friend.

He was probably never really happy in Africa; his right niche was the academic side of railway economic problems, and he felt that in Africa he was too far away from the centre of things and deprived of the facilities for original research. His later years were marred by excessive ill-health which prevented him from playing a full part in the momentous questions raised by the war.

It is probably true to say that the capacity of his brain exceeded the capacity of his body, but many railwaymen of his generation learnt much from his unorthodoxy and his inquiring mind and were inspired and encouraged to examine old problems afresh. That inspiration remains with us and some feel that an outstanding intellect has been removed.

Yours faithfully,

R. E. ROBINS,  
General Manager

## Naming Locomotives after the C.M.E.

352, Carter Knowle Road,  
Sheffield. July 11

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—I agree with Mr. A. Richards in his letter published on July 5, that to name locomotives after Chief Mechanical Engineers is a gracious tribute to the memory of famous men, but when he submits that "perhaps no finer names could be bestowed upon a locomotive," he introduces a controversial topic. Personally I would choose a name in keeping with the engine's suggestion of pedigree and power. I feel it is largely a question of association of ideas.

The old L.N.W.R. of the early nineties had the classical angle on this interesting subject. Some of the names chosen in Webb's day were wonderfully appropriate. Who can ever forget such heroes as *Ajax*, *Ixion*, *Achilles*, *Cyclops*, *Hercules* and a host of other comparable giants. Whoever was responsible for those names had some knowledge of psychology and a temperament responsive to the sound and significance of words. He was influenced by what Matthew Arnold described as "the grand manner."

I submit that to name an engine after a County, Hall, Football Club, or Castle is merely giving it a label—not a name. You identify it, but you do not endow it with character and individuality. To the writer, and I am sure to thousands of others who love our steam railways, a first class express locomotive is something more than a mere assemblage of mechanical parts. It is instinct with life and movement, and its name should be chosen with the object of emphasising its appeal to the imagination.

Yours faithfully,

C. R. PODMORE

## The Scrap Heap

### GOODWILL CORNER

Mr. Strauss, Parliamentary Secretary to the Minister of Transport, said he did not believe the country would object to paying higher railway fares if the increase went to the railwaymen.—From "The Daily Telegraph."

### WHY?

Why are stations not cleaner and brighter?

The priority needs for housing have their effect on the staff available for painting, and supplies of material are short. The company have programmed as many stations to be painted in 1946 as possible. In some cases they are being given a single coat as a stopgap method of introducing a little brightness.—From "The L.M.S. Answers Your Questions."

### 100 YEARS AGO

From THE RAILWAY TIMES, August 1, 1846

#### MIDLAND RAILWAY COMPANY.—

At the Fifth Half-yearly General Meeting of the Proprietors of the Midland Railway Company, convened by the Directors in pursuance of the provisions of the Company's Acts of Incorporation, held at the Railway Station, Derby, on Saturday, the 25th day of July, 1846,

GEORGE HUDSON, Esq., M.P., Chairman of the Board of Directors, in the chair,

The following resolutions were agreed to:—

Resolved,  
That the Report of the Directors now read be received, and adopted, and printed, and circulated amongst the Proprietors.  
Resolved,  
That a Dividend is hereby declared of  
£3. 10s. on each £100 of the Midland Consolidated Stock, of  
£3. 10s. on each £100 of the Consolidated Preferential Stock, and of  
£2. 10s. 3d. on each £100 Birmingham and Derby Consolidated Stock,  
To be payable on the 17th of August next.

Resolved,  
That under the powers of the Acts of Parliament relating to this Company, the sum of £200,000 capital stock be created.  
That £40,000, part of such stock, be allotted to the Shareholders in the Nottingham, Mansfield, and Midland Railway Company, in consideration of the payment of the sum of £40,000.

That £50,000, other part of such stock, be allotted to the Shareholders in the Boston, Newark, and Sheffield Railway Company, in consideration of the payment of the sum of £50,000.

That £110,000, residue of such stock, be appropriated among the Shareholders of the South Midland Railway Company, upon such terms and conditions as may be agreed upon between the Directors of the two Companies

(Signed) GEO. HUDSON, Chairman.

At a Special General Meeting of the Proprietors of the Midland Railway Company, held at Derby, July 25th, 1846 (immediately after the Half-yearly General Meeting),

It was resolved,  
That the Directors be authorised to affix the seal of this Company to the counterpart of a lease of the Leeds and Bradford Railway.  
(Signed) GEO. HUDSON, Chairman.

Mr. Hudson having left the chair,  
It was moved by John Rand, Esq., seconded by John Houghton Branker, Esq., and carried by acclamation,  
That the thanks of this meeting be given to the Chairman for his impartial, courteous, and able conduct in the chair this day.

### G.W.R. TRAINS A HEAVYWEIGHT

Plans are in hand to re-establish this autumn the G.W.R. Paddington Boxing Club in new premises near the station. The company, through its Staff Association, hopes to provide an up-to-date gymnasium with competent trainers, complete with mobile ring, punch bags and balls, skipping ropes, gloves, vaulting horse, and medicine ball.

Among the pre-war members of the club was Morgan Watkins, a van guard at Park Royal, who during his Army career has fought his way through the C.M.F. championships and who is the present British Army Heavyweight Boxing Champion.

### "YOUR RAILWAYS AMAZED ME!"

If an American visitor may presume to voice an opinion, may I say that I am amazed that Britain should even consider tampering with a phase of its national life in which it so excels—the management of its railroads?

American railroads performed miracles during the war. They put on a masterly show. But to my view, the English surpassed it.

I spent some months here in those difficult days. Always I was startled by the comparative regularity of the services in and about London. Not because they were invariably on time, but because they were consistently so little late, VIs, V2s, and the blackout notwithstanding.

Then there was the day I landed in England from North Africa—June 10, 1944, four days after D-Day. Our plane came down in Cornwall. Knowing what the confusion in Southern England must be, with millions of invasion troops packed into and squirming about in the tiny area, I estimated that our Cornish Riviera express ought to get us into London five, eight, or 12 hours late.

I was remembering what the large troop and supply movements had been doing to railway schedules in the Eastern Seaboard District at home. But when the Great Western train rolled into Paddington that day we were ten min. ahead of time!

Britons contemplating nationalisation should think hard before risking the impairment of organisations which can do things like that.—Mr. Lee M. Schoen, in a letter to the Editor of "The Daily Telegraph."

### Star-ling!

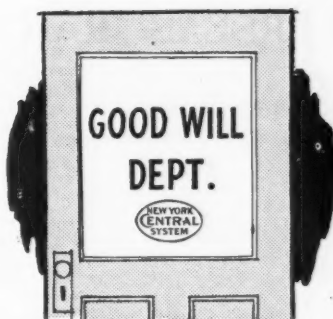
The holiday queue at Paddington recently was reckoned to be a mile long. At Waterloo queues were longer than any ever seen there before.

The chaos at London's main stations has been the feature of Saturday in the city throughout the summer. It is time that it ended and we got back to sensible pre-war travel conditions. Pleas by the railway companies that they are still working under difficulties comparable to those of wartime are no longer valid. The queue must not become permanent.

Is there more that the directorates can do? First, more trains are required. No rolling stock should stand idle during these holiday week-ends. Every possible engine and carriage should be pressed into service. Next, let pre-war seat booking facilities be restored. This would do much to whittle down the queues, for station staffs would have some advance idea of the size of Saturday's job.

Every possible step must be taken to improve accommodation at stations. Mothers and children are being exposed to the weather while they wait for trains. Shelter for all should be the aim.

These scenes strengthen in many minds the suspicion that the railways, scheduled for nationalisation, are less zealous in the



### It's the biggest one on your Railroad!

New York Central's Good Will Building Department has a staff of 136,000 men and women, and an "office" 11,000 miles long! It's the biggest department on the Railroad, because it is the Railroad. And each of us is part of it.

Anyone can see that the smiling ticket girl at her window, the gateman handling crowds at a big terminal, or the trainman helping a passenger up the car steps is doing a good will job. But so is the engineer who returns the friendly wave of some youngster... the maintenance foreman who shows special consideration for property owners along the right of way... or the mechanic who enthuses to his lodge brothers about New York Central's latest locomotive.

On the job and off, let's be boosters. Let's show we are proud to be members of one of the world's greatest Transportation Teams. And above all, let's treat people with courtesy that builds good will... the thing on which the future of our Railroad and ourselves so largely depends.

[From "Company Manners" issued by the New York Central System]

public service than they could be. It is up to them to show that the taunt does them an injustice.—From "The Star."

[The writer of the above must be very youthful, or must have forgotten that before the war the holiday crowds at stations were just as great. Every available engine and carriage is used now—far more intensively than before the war—but there are fewer of them. Reintroduction of limited seat-booking facilities is expected in the autumn, but will not increase the number of seats available.—Ed., R.G.]

More than 10,000 railwaymen are members of the L.M.S.R. Federation of Horticultural Societies, and during the last 12 months they have purchased 240 tons of seed potatoes, 230 tons of fertilisers and £1,000 worth of small seeds. Crops valued at £200,000 are expected this year.

### BY BELGIAN ENGINE TO WATERLOO!

Local people travelling on the Southern Railway service from Bournemouth to London have recently noticed a rather different type of engine used on expresses.

The new engine now in use on the Bournemouth-London line is one which was bought from the Belgian Government, and it carries that country's flag painted on its sides. It is in the "Merchant Navy" class.—From "The Bournemouth Daily Echo."

### NEXT WEEK'S RAILWAY CENTENARIES

Nottingham to Lincoln (33 miles), Midland Railway, opened August 4, 1846.

Dublin to Carlow (56½ miles), Great Southern & Western Railway, opened August 4, 1846.

Navigation House (T.V.) to Aberdare (8 miles), Aberdare Railway, opened August 6, 1846.

## OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

### SOUTH AFRICA

#### White Paper on Rates Recommendations

The Minister of Transport recently laid on the table of the House of Assembly a White Paper replying to the recommendations of the Board of Trade & Industries made after its recent inquiry into railway rates (*The Railway Gazette* of May 24). The White Paper states that the drastic changes in tariff policy recommended by the board would dislocate the industry and trade of the country.

The recommendations of the board, states the White Paper, are in some respects contradictory. Broadly they resolve themselves into a proposal that the existing tariffs should be gradually revised and be based on the total direct and indirect costs incurred in conveying traffic; or, in some cases, made to bear a much closer relationship to these costs than they do now. The tariff principle advocated by the board is termed "cost of service," and, says the White Paper, disregards the factor of value of service, or "charging what the traffic will bear."

#### Existing Rates Encourage Traffic

The White Paper explains that the clear intention of the South Africa Act is that the railways, ports and harbours should be run on a self-supporting, but non-profit-earning basis with a view to developing the economic resources of the country. To this end the administration, like all other railway undertakings, varies the tariffs applicable to different classes of traffic as a means of attracting the greatest possible volume of traffic of all descriptions. Some classes of traffic can afford to pay higher rates of charge than others, and it is the universal experience of all railways that if they attempted to base their tariffs on the principle that each unit of traffic should contribute a *pro rata* average share of the total direct and indirect costs of running the railways, much traffic would be discouraged and lost.

The administration, says the White Paper, cannot subscribe to the reasoning of the board, and declares that the argument that low-rated traffic, including export traffic, is carried at a loss is founded on a fallacy. Existing rates and fares are based on averages, which make for a greater measure of stability in the tariff structure, a most important consideration for the trade and commerce of the country.

There could be no appreciable measure of stability under the tariff system proposed by the Board of Trade & Industries. As in the past, the tariffs will continue to be influenced by changing conditions, but as far as can be seen at present, whatever evolutionary tariff changes may come in future, the question of any general departure, on the lines advocated by the board, from the principle of charging what the traffic will bear, must remain a matter of academic interest.

#### Delivery of "15 F" Locomotives Completed

With the arrival in the Union recently of seven class "15 F" 4-8-2 main-line engines, British manufacturers completed the delivery of 90 engines of this type, ordered by the South African Railways during the war years. The whole order was completed within a year of the end of the war, a notable achievement in view of the con-

ditions under which manufacture had to be carried out. Some of the engines were transported at the height of the war, but not one was lost through enemy action. The engines cost approximately £24,000 each, and delivery was made at a time when engine power was being strained to the limit of its capacity. The order was split into two parts; the first, for 30 engines, was placed in October, 1942; and the second, for 60, on December 31, 1943. The first locomotive arrived at Durban in July, 1944.

Thirty of the locomotives were built by Beyer, Peacock & Co. Ltd., and 60 by the North British Locomotive Co. Ltd. The Beyer, Peacock engines were described in *The Railway Gazette* of December 8, 1944.

### CHINA

#### Restoration of Railway Services

The Canton-Hankow Railway was reopened throughout on July 1. Services had been operated between Canton and Kowloon for some months previously.

Work is in progress on the extension of the Lunghai Railway from its present western terminus at Tienshui to Lanchow. The line, begun on May 1 this year, will take two years to build.

Repair work has been resumed on the northern section of the Peiping-Hankow Railway, beginning with the 12-mile section between Yuanshih and Kaomi. Reduced services are in operation on the southern end of the railway, between Chengchow and Hankow.

### WESTERN AUSTRALIA

#### Locomotive Building Programme

Of all the department's problems none probably is more serious than the shortage of serviceable locomotives, and over the 10-year rehabilitation programme it is intended to build 140, and perhaps even more. In the past 12 months, 10 new engines were built at the Midland Junction Workshops.

A limiting factor at present in the rapid production of new locomotives is that the workshops were designed originally for repair work and not for the building of new stock on an extensive scale. It is intended, therefore, to carry out an extensive reorganisation scheme at the workshops. Two munitions annexes will be taken over and equipped with travelling cranes, and in one it is intended to build wagons on line production. A new paint shop will be built and the present shop will be converted to house the existing presses and a new 1,000-ton press to be imported from England. This will make much more space available in the boiler shop and will enable a material increase to be made in the output of boilers, the shortage of which has been a key factor in retarding maintenance work and new production.

Work is proceeding on eight more "DD" class suburban tank engines, of which class two are already in service. One of these engines was illustrated in *The Railway Gazette* of July 12. On their completion, five more "S" class goods engines will be built. It is then intended to begin construction of a new class for express passenger service. The 10 engines of this new "V" class will be similar in appearance, weight, and nominal power to

the existing "PR" class, but will embody a number of improvements, including, it is hoped, roller bearings. Work on this new class should start early next year, and, once the shops get into their stride, a production rate of one every three weeks will be sought.

### BOLIVIA

#### Yacuiba-Santa Cruz Railway

The Argentine-Bolivian mixed commission, supervising the construction of the Yacuiba-Santa Cruz railway, has invited tenders for work on the Tarabuco-Zudanez sector, involving an expenditure of about 500,000 bolivianos. Work on this Argentina-Bolivia railway line, which begins at Yacuiba on the Argentina-Bolivia border, is being intensified, and sleepers are to be laid shortly for lines starting from Pocitos. Further road works are to be undertaken by the commission near Oran, calling for an expenditure of 8,938,500 bolivianos.

### BRAZIL

#### New Santos-San Paulo Line

Work has begun on the connection of the town of San Paulo with the Mayrink-Santos branch of the Sorocabana Railway. A concession granted to the San Paulo Railway giving it exclusive rights of rail transport between San Paulo and Santos, together with a privileged zone extending for five leagues on both sides of its lines, has so far prevented any attempts to amplify communications between the two towns. With the expiry of the concession this year, steps are already being taken to improve this situation, which is considered to have been the cause of congestion at the port of Santos.

From San Paulo the alignment of the new connecting line is practically fixed, since it is the intention to take advantage of the work already done by the Light & Power Company on the canalisation of the River Pinheiros. An ample margin has been reserved at the side of this canalisation scheme for public services, and it will be used for the new line of the Sorocabana Railway. For this reason the roadbed of the railway from the mouth of the River Pinheiros to the Represa Velha is considered ready, and requires only to be laid with sleepers and rails. The point of junction with the Mayrink-Santos branch will be between Engenheiro Marsillac and Evagelista de Sousa.

At one time it was thought that the work would be finished by April, but it appears now that completion will be towards the end of the year.

### UNITED STATES

#### Pennsylvania Coast-to-Coast Sleepers

The Pennsylvania Railroad on June 2 inaugurated a new through sleeping car between New York and Los Angeles, bringing the total of coast-to-coast services operated out of New York by the railway to five. The new car runs between Chicago and Los Angeles in both directions in the "Golden State Limited" of the Rock Island and Southern Pacific systems. As recorded in *The Railway Gazette* of July 5, the "Golden State Limited" also conveys a New York-Los Angeles sleeping car of the New York Central.

A fast through sleeping car between Washington and Los Angeles, with a journey time of 68 hr. and no extra fare, was inaugurated by the Pennsylvania on June 1.

Accelerations were made on the same date in the existing Pennsylvania coast-to-coast services, namely:—

New York to Los Angeles via Atchison, Topeka & Santa Fe (accelerated 1 hr. 50 min. westbound).

New York to Los Angeles via Chicago & North-Western and Union Pacific (accelerated 14 hr. 5 min. westbound, and 14 hr. 30 min. eastbound).

New York to San Francisco via Chicago & North-Western, Union Pacific, and Southern Pacific (accelerated 14 hr. westbound and 12 hr. 30 min. eastbound).

#### Santa Fe Access to St. Louis

The Chicago, Burlington & Quincy and the Atchison, Topeka & Santa Fe Railroads on June 21 asked Interstate Commerce Commission approval of a plan which would enable the Santa Fe to enter St. Louis over a direct route from Kansas City, and at the same time would provide the Burlington with shorter routes between Chicago and Kansas City, and between St. Louis and Kansas City. The transaction does not involve the construction of any new trackage, but would "provide better railroad service, at lower cost, by more efficient and more intensive use of existing railroad trackage." A statement on Atchison, Topeka & Santa Fe plans for improved east-west communication in conjunction with the Burlington was reported in *The Railway Gazette* of June 14.

The application involves the following principal steps:—

1.—Acquisition jointly by the Burlington and Santa Fe from the Gulf, Mobile & Ohio (Alton) of the 156-mile line extending from Mexico to Rock Creek Junction (Kansas City, Missouri), and acquisition by the Burlington and Santa Fe of trackage rights between Mexico and Francis. The G.M. & O. would reserve trackage rights over the Mexico—Kansas City line for freight service.

2.—Acquisition by the Santa Fe of trackage rights over the 112-mile Burlington line between Francis and St. Louis.

3.—Acquisition by the Burlington of trackage rights over the Santa Fe main line between Bucklin and Sheffield (Kansas City).

4.—Acquisition by the Burlington of trackage rights over the Wabash between Camden Junction and Birmingham (North Kansas City).

For the past forty years the Burlington and the Alton have operated joint services between St. Louis and Kansas City over their connecting lines via Mexico. The arrangement was not satisfactory for freight, the Burlington giving preference to its own longer line via Hannibal and Cameron Junction; and the Alton to its own line, also longer, via Roodhouse, Illinois. Under the proposed plan, the Burlington and the Santa Fe would acquire jointly the Alton section of the line, which would give the Santa Fe entry to St. Louis and the Burlington substantial payments from the Santa Fe for use of the Burlington line between Francis and St. Louis.

#### Reductions in Mileage

The present Burlington line between Chicago and Kansas City via Galesburg, Quincy, and Cameron Junction is 490 miles for passenger service and 479 miles for freight service. Under the proposed plan, with trackage rights over the Santa Fe west of Bucklin, the Burlington passenger mileage would be reduced to 467½ miles, while its freight route, with trackage rights over the Santa Fe and Wabash,

would be reduced to 458 miles. In addition, the proposed routes would permit higher speeds.

Operation of the Santa Fe into St. Louis, in addition to improvement of the St. Louis—Kansas City line, upon which the Burlington and Santa Fe propose to spend \$5,000,000, would provide the first one-company service between St. Louis and the Pacific Coast, and between St. Louis and an extensive territory served by the Santa Fe. It also would permit direct movements between the Atlantic and Pacific coast through St. Louis, using only two railroads, an advantage long enjoyed by Chicago.

#### "City of Denver" Tenth Anniversary

The tenth anniversary of the Chicago & North-Western and Union Pacific "City of Denver" streamline diesel trains occurred on June 18, and was celebrated in a ceremony at the Denver Chamber of Commerce. When inaugurated, the trains consisted of 12 cars hauled by two-unit 2,400-h.p. locomotives. In May, 1939, they were increased to 14-car trains hauled by three-unit 3,600-h.p. locomotives. During the war the schedules were lengthened by 1 hr. in each direction, but on June 2 this year they reverted to their original timings of 15 hr. 35 min. eastbound and 16 hr. westbound between Chicago and Denver. In the 54 months of wartime operation the trains carried 562,636 passengers, as compared with 467,178 in 66 months of peacetime working.

## CANADA

#### Accelerated C.N.R. Freight Services

The Canadian National Railways have instituted a new overnight express freight service between Montreal and Toronto. A train leaving Montreal at 6 p.m. arrives in Toronto at 5.10 a.m. The reverse service leaves Toronto at 7.30 p.m. and reaches Montreal at 5.15 a.m. A 90-hr. service has been scheduled between Vancouver and Winnipeg. The Winnipeg—Montreal—Toronto service leaves Winnipeg at 1 a.m. and reaches Montreal at 1 a.m. on the third day, with a similar three-day service westbound.

#### Post-War Plans for Passenger Comfort

Improved sleeping car designs are featured in the post-war programme of the Canadian National Railways for modernising passenger equipment. Streamline cars with individual rooms, which can be formed into suites, and parlour cars with private rooms are some of the types projected. Cars with "roomettes" will have beds arranged to fold into a recess in the wall, allowing more freedom for daytime travel, a medicine cabinet with a mirror, and a wardrobe. Beds will be of the latest Pullman design.

A bedroom-buffet-lounge car will provide four double bedrooms, which can be made up into suites by means of partitions. A spacious lounge with a library, a solarium, and a modern buffet section will be other features in this type of car. Parlour cars will include completely equipped private rooms, having restful sofas and seats. These cars will seat 26 passengers and will also have ladies' lounges. One type of parlour car will be provided with a buffet section.

#### New First Class Coaches

First class coaches will be longer and wider, but will have fewer seats. A glass partition will divide the cars into two sections, seating 32 non-smokers and 38 smokers. Indirect lighting, wide double-plate armoured glass windows, removable

tables, a new design ladies' lounge room, and interior decorating of light colour shades to give a pleasing and restful effect will be some of the comforts of these new cars.

## GREECE

#### Peloponnesus Railway Re-Opened

The metre-gauge railway line between Athens and the Peloponnesus towns of Patras, Pygos and Kalamata, which had been cut by the Germans in 111 places and repaired by Greek engineers, was re-opened to traffic on July 15 in the presence of Greek Ministers, deputies, and U.N.R.R.A. officials. This line was originally the Piræus-Athens-Peloponnesus Railway, but the company was liquidated in 1940 and its assets placed in charge of the State budget. The system continued to be worked independently of the Hellenic State Railways.

## HUNGARY

#### Rolling Stock Shortage

Particulars recently issued by the Hungarian Ministry for Communications state that during the past twenty months all railway lines have been restored to working order except for a section some 25 miles long, and five tunnels. On the other hand, acute shortage of rolling stock and locomotives is still being experienced. In the summer of 1944 there were some 3,000 locomotives, 55,000 goods wagons and about 4,800 coaches in Hungary. When the Germans had left the country, there were only 410 locomotives available, in addition to about 4,000 goods wagons, and 150 coaches. The present stock consists of 590 locomotives, 10,000 goods wagons and 775 coaches.

## SWITZERLAND

#### Rhaetian Passenger Traffic in 1945

Despite a considerable drop in defence traffic after the end of hostilities, 1945 proved another record year for the Rhaetian Railway. Tourist traffic over the whole of the company's system, particularly on the Engadine lines, exceeded all previous records, being contributed to by the large numbers of U.S. soldiers on leave in Switzerland in accordance with the agreement between the United States and Switzerland which became operative on July 25, 1945. In addition, the "popular travel days" arranged by the company during the summer, when excursion trains were run, attracted crowds to such an extent that it proved almost impossible to cope with the demand for accommodation.

The number of passengers carried in 1945 increased to 5,333,624 from 4,954,144 in 1944, an expansion of 7.7 per cent. Compared with 1938, when passengers numbered 3,029,975, the increase amounted to 76 per cent. The increase in first and second class passengers was particularly notable. Their total was 246,711 in 1945, or 29,846 more than in the preceding year. It must be pointed out in this connection that first class is available only on a few fast trains and that these are not run on all lines. Therefore, the increase is even more noteworthy, and is a pointer to the prosperity brought about in Switzerland as a result of the war.

The 1.8-mile section of the Bernina system from the Italian frontier at Campocologno to Tirano, was re-opened to traffic on October 3, 1945, after being closed for over two years.

## Report on Transport in Jamaica

*Mr. C. E. Rooke's recommendations for gradual closing of lines and economics in operation, together with an administrative and financial overhaul*

IN September last year Mr. C. E. Rooke, C.M.G., M.Inst.T., visited Jamaica to study problems arising out of the operation of all forms of transport in the island, and to report on measures for their better regulation and control. The report was published recently. Mr. Rooke observes in his introductory remarks that, although his terms of reference did not say so expressly, they implied that the main issue was between road and rail transport, and this impression was most clearly indicated after a few days in Jamaica. There was a body of opinion which said "scrap the railway" or "sell it for sixpence," two views which were reflected in the previous Benham Report, and Mr. Rooke found a bitterness and acrimony between conflicting interests, exacerbated by war conditions, that distorted perspectives.

As a result of his study of the railway, Mr. Rooke concludes that its financial position has been inaccurately depicted over a long period. The hidden loss in depreciation of wasting assets has not been shown, nor has any proper provision been made annually to meet it. This steady hypothecation of the future has been liquidated from time to time by raising further loan capital without any corresponding prospect of the railway being able to service the debt charges. The generally unsatisfactory financial position has been aggravated by the awards of extraneous committees to the staff in salaries, wages, and improved conditions of service in line with other Government departments, whether the railway could afford to pay for them or not. Greatly increased cost of materials has added yet further to the burden of expenditure, and a return to 1939 costs is unlikely.

Railway revenue is bound to diminish with the increasing reversion of traffic to the roads, and also because it will not be possible to sustain the increased rates that the railway was able to impose on account of road restrictions. Everything indicates that if the railway continues as at present, its finances will drift from bad to worse, and some drastic action is necessary if it is not to become an increasing burden on the resources of the Government.

### Sale of Railway Undesirable

Mr. Rooke considers that the sale of the railway would be undesirable and imprudent, in that it would repeat the cycle of sale, re-purchase, and loss to the Government. Wholly to scrap the railway would cause chaos, greatly increased road charges, and some extra expenditure on road maintenance by the addition of not less than 22,000,000 ton-miles to road traffic, excluding passenger mileage. Mr. Rooke therefore recommends as a partial remedy the reduction of railway commitments by the eventual closing of certain lines, and "cannibalisation" of unwasted assets rendered surplus thereby. This should be a gradual process, carried out in step with the ability of road transport to replace rail transport.

The section proposed for the first application of this treatment is the line from Spanish Town to Ewarton and Port Antonio. Subsequently, the branch to Frankfield should be dealt with. The question of closing the main line will not arise until the surplus assets from the closure of other lines cease to ward off the impact of renewals of expenditure, and Mr. Rooke

suggests that a life of ten or fifteen years should be envisaged for the rest of the system.

In the meantime, Mr. Rooke recommends the extended use of railcars for passenger service, as these vehicles are particularly suitable for the conditions of Jamaica. Several of these vehicles could be operated to provide simultaneous departure at a convenient time from different stations, and such a service would diminish the diversion of passenger traffic to the roads.

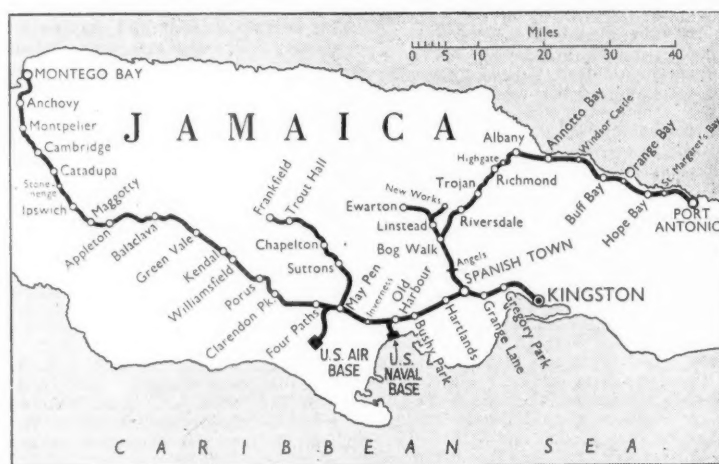
Moreover, passengers will pay more to travel in a railcar than in a train, and the running costs are cheaper than those of the steam locomotive. The report gives the direct cost of working a coal-burning engine from Kingston to Montego Bay as £22, and compares with this the figure of £6 10s. for a large compound-unit diesel railcar, or £9 10s. for two small

not be subjected to any artificial restrictions to force traffic on to the railway.

The report deals at length with the present administrative system of the railway, and points out that the administrative powers of an exceptionally capable advisory board are stultified because it has no statutory powers, and is advisory not to the Government, but to the General Manager, who then has to go through the ponderous Government machinery in the normal routine way. It is recommended that the strategic administration and control of all transport affairs, boards, and authorities be placed under a single authority, under the chairmanship of a proven man of wide transport experience (including wharves and ports), and preferably a civil engineer.

### Wider Powers for General Manager

The General Manager of the railway should have the widest possible powers to do all that is necessary to manage the railway on ordinary business lines, without being tied to the cumbersome system of Government procedure. It is proposed



*The railway system of Jamaica. It is proposed gradually to restrict services to the main line from Kingston to Montego Bay*

railcars. The closing of the Port Antonio and Ewarton sections will reduce the cost of installing an all-metallic train control circuit, for which £25,000 had been estimated. This work should be proceeded with, as it saves time and money and promotes efficient service. A £150,000 scheme for remodelling Kingston yard should be dropped, as traffic will decrease, and with it the present operating difficulties. Mr. Rooke recommends the closing of a level crossing and road right across the mouth of the station, which costs the railway thousands of pounds a year in delays.

Regarding road and rail competition, the report emphasises that the railway must stand up to competition on a commercial and competitive basis, but with a free hand to get on with its job unfettered by Treasury and Secretariat routine methods of control. The licensing boards should exercise the utmost care that there is no wasteful and thoughtless duplication of passenger transport facilities. A scheduled bus service should not be permitted to start from the same place at the same time, for instance, as a railcar, particularly over distances exceeding 50 or 60 miles by rail. It is recognised that road transport is eminently suitable for, and vital to, the interests of Jamaica, and that it should

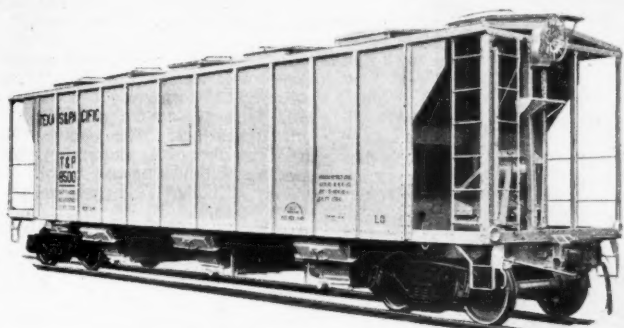
that the Railway Advisory Board should be recreated as a statutory body with terms of reference covering major issues and policy. Its function should be advisory, and not executive, but to advise the Government. Recommendations made by the General Manager for re-organisation of staff and some amalgamation of the civil and mechanical engineering staff, with reductions generally, are accepted.

### New Accounting System Required

A complete separation of the railway accounts from those of the Government is recommended. The capital position should be reconstructed, and a proper capital account, balance sheet, and analysis of capital expenditure, separating renewals, should be opened. It is also necessary to make a complete revaluation of wasting assets, and open a proper renewals (depreciation) account. Arrangements should be made for a general audit and examination of railway accounts and finances, with a view to commercialisation, simplification, and introduction of a simple costing system. This work requires an accountant familiar both with Government methods and railway business. It is considered that such an accountant should be obtainable among retired Colonial Service officers.

## New Aluminium Triple-Hopper Wagon

*A notable design in which greater loads can be carried, due to the saving in tare weight*



IN 1945 the American Car & Foundry Company completed the development of a triple-outlet hopper wagon having a nominal capacity of 70 tons and 2,840 cu. ft., with a light weight of 55,500 lb. (24.7 tons).

As compared with the design by the same company which immediately preceded it, this new type of wagon has 800 cu. ft. greater capacity, when measured to the junction of the roof sheet and the side plate, or 784 cu. ft. more when measured to the horizontal web of the side plate. Yet the tare is increased by only 7,400 lb. (3.3 tons).

The new type has a load limit of 154,500 lb. (69.0 tons), and the overall width is based on the A.A.R. unrestricted clearance of 10 ft. 2½ in. The body is divided into three vented compartments which can be unloaded separately or simultaneously. Twenty-five cars of this type recently have gone into service on the Missouri Pacific.

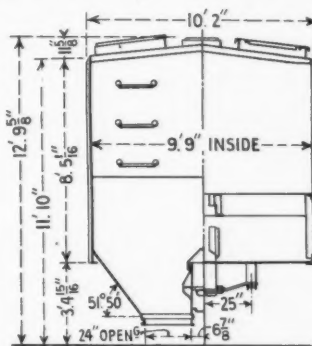
The object in increasing the volume is to meet the changes in transportation requirements for handling bulk commodities, especially where a wide range in weight per cubic foot is involved. The successful handling of bulk commodities in covered hopper cars has resulted in broadening the service where weatherproof protection is required. Because of this, the covered hopper car is becoming recognised as necessary for the handling of such materials as powdered coal, silica gel, wood flour, fuller's earth, sulphur bauxite, cement, soda ash, salt, clay, lime, and sand. The added volume, compared with the earlier type having two outlets per side, will render the new cars more serviceable, and will increase the possibility of securing return loads.

The Missouri Pacific Railroad, in adopting these wagons, has been able to add some 6½ tons to the pay-load of each, at an increase in overall length of only

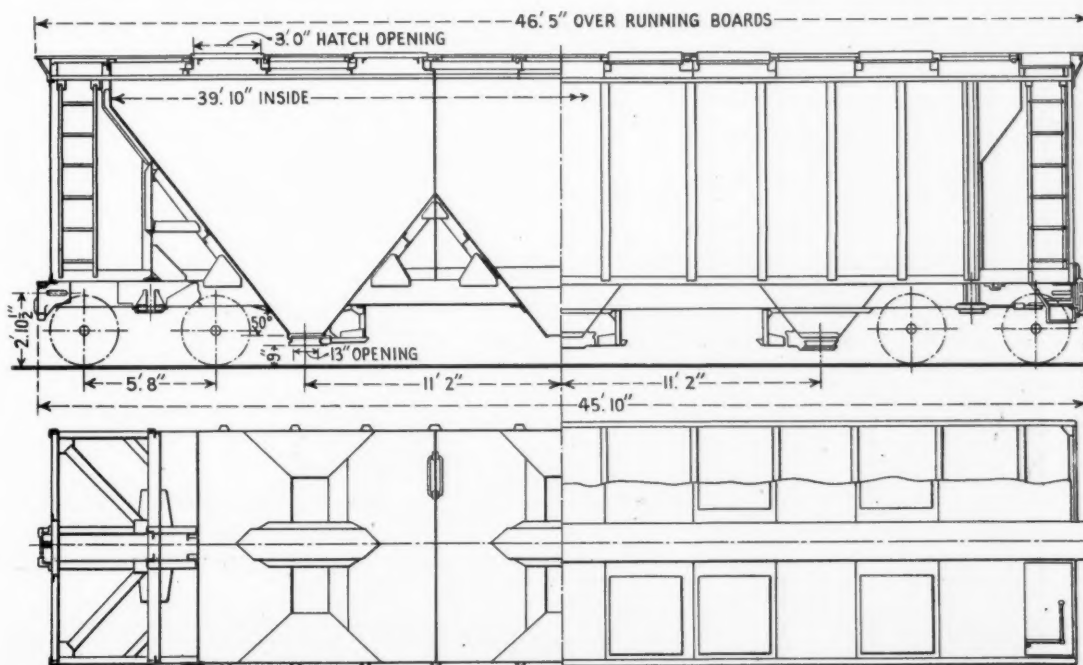
39½ in., and compared with the A.A.R. standard 70-ton steel hopper wagon, the saving in weight is rather more than 13,000 lb.; even the special lightweight A.A.R. design, using welded alloy-steel construction, is 8,000 lb. heavier than the new aluminium wagons.

These remarkable savings in tare weight have not been secured at the expense of the thickness of plates. Indeed, the specifications call for the same thicknesses as in the standard A.A.R. steel design. The wagons' insides and ends, for example, are made of ¼-in. aluminium sheets, and the hoppers and doors of ⅝-in. plates. The yield strength of the aluminium used is 38,000 lb. per sq. in., which gives a high factor of safety. The use of these thick sheets and plates also allows a long life when possible wear in handling abrasive materials is taken into account.

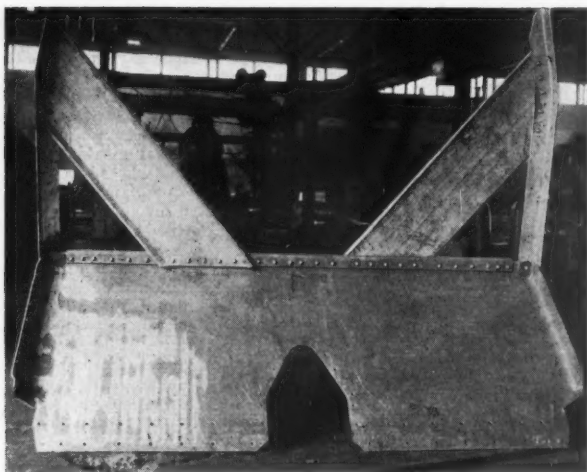
Except for the centre sill and bolsters, which are of carbon steel, the whole body is of Alcoa aluminium alloys. The bogies and special fittings are of steel, except the Wine door-frame, which is an aluminium alloy casting. The "Dreadnought" pan



End elevation with dimensions



Elevation and plan of 70-ton triple-hopper wagon, showing dimensions and general arrangement



*Assembly of cross-ridge gusset, showing special extrusion developed for this purpose*

doors are of aluminium alloy pressings, heat treated after forming.

A number of extruded shapes have been designed specially for use in these wagons; some of them appear in the illustration above of the cross-ridge gusset assembly. In general, all parts are readily formed

cold, using dies changed little, if at all, from those required for steel pressings. Rivets are either power-driven cold or hand-driven hot, heating being accomplished by air type and contact type electric heaters. A modified button head is used on the driven end of aluminium rivets.

Steel rivets, applied in the usual way, are used to connect all steel car parts.

Special fittings include Miner A-22-XB draft gear and Ajax-Consolidated hand brakes. Fifteen of the 25 Missouri Pacific wagons have Westinghouse brakes, and 10 have New York type AB empty-and-load brakes, which are required because of the low ratio of empty to loaded wagon weights.

The wagons are mounted on Unit-type bogies with cast-steel side frames and bolsters. Fifteen wagons are equipped with National and ten with Magnus plain journal bearings. The wagon bodies are left in their natural aluminium finish; the underframes and bogies are painted black.

The principal dimensions of these wagons are as follow:—

Length over buffers	...	45 ft. 10 in.
" inside	...	39 ft. 10 in.
" of centre compartment	...	11 ft. 1½ in.
" centre to centre of bogies	...	35 ft. 10 in.
Width over side plates	...	10 ft. 2 in.
" inside	...	9 ft. 9 in.
Height over running boards	...	12 ft. 9½ in.
" to top of side-plate web	...	11 ft. 10 in.
" from rail to bottom of outlet frame	...	10 ft. 9 in.
" from rail to bearing face of centre plate	...	2 ft. 1½ in.
Outlet gate opening	...	2 ft. by 13 in.
Hopper centres—lengthwise of wagon	...	11 ft. 2 in.
Light weight of wagon	...	55,500 lb. (24·6 tons)
Load limit	...	154,500 lb. (70 tons)
Capacity 6 in. below side plate	...	2,575 cu. ft.
" to side-plate web	...	2,765 cu. ft.
" to eaves	...	2,840 cu. ft.
Ratio revenue load to gross weight	...	73·5 per cent

## An Improved "Monarch" Floating and Elastic Shock-Absorber for Draftgear

*Successful tests with service vehicles*

AS a result of considerable study and experiment, the Monarch Controller Co. Ltd., of 7, Victoria Street, S.W.1, has developed an improved floating and elastic patent shock-absorber for railway rolling stock, etc., draftgear. The shock absorber consists of two pairs of levers with convex faces; each pair is secured to a crosshead through which passes a spring rod carrying two springs, one on each side of the crossheads.

The lower ends of the levers have been fitted with pins, which pass through the outside framework and shank of the coupler, which is slotted to allow movement of the pins.

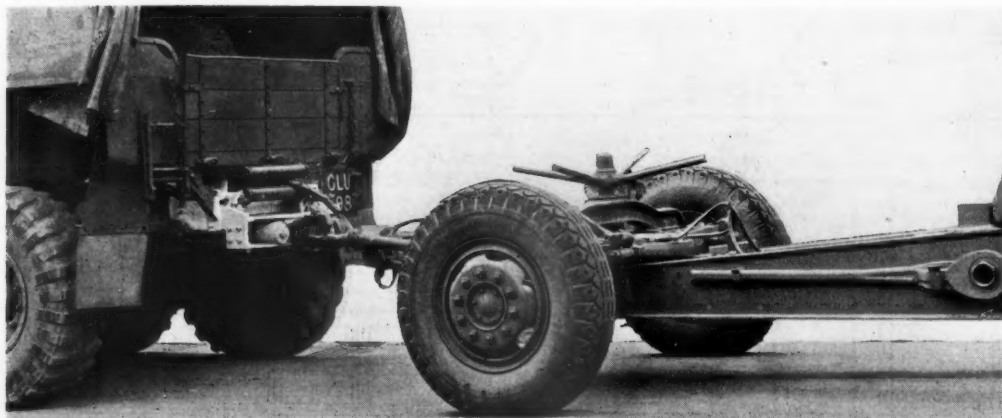
Any applied tension or compressional stress tends to close the lower ends of the lever, with consequent opposite movement of the upper end, causing compression of the springs. At the same time the line of contact between the lever faces is varied, with the result that the leverage of the spring against the load is increased in direct proportion. The increase of leverage will be sufficient, moreover, always to keep the spring resilient under any condition of loading.

The load-travel curve of the springs fitted with the "Monarch" improved shock-absorber, as plotted, is a parabola, the curve of which can be modified by

varying the curves of the lever faces; that of an ordinary spring under direct compression is a straight line which terminates when the spring is closed, that is, becomes solid.

The accompanying illustration shows the shock-absorber fitted to the towing arrangement of a British War Office vehicle used for hauling large equipment over rough territory. Since fitting the shock-absorber, it is stated that this vehicle has covered thousands of miles in towing operations, with an average load of 17½ tons under rigorous service conditions, without any attention.

The drivers of the vehicle also report that all jarring during towing is eliminated, that the take-off with a dead load is smooth, and that there has been no breakage of coupling, which frequently happened before the adoption of the shock-absorber.



*A general view of the "Monarch" towing gear attached to a W.D. vehicle*

## Power-Driven Hand Tools for the Civil Engineer's Department—6

### *Pneumatic drills and woodborers*

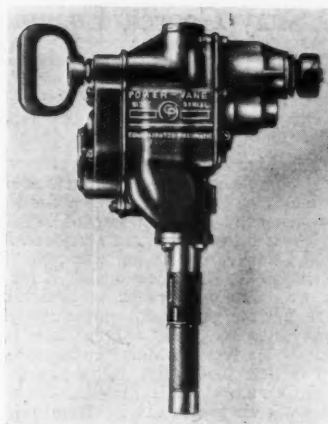
SEVERAL examples of pneumatic tools from the range made by the Consolidated Pneumatic Tool Co. Ltd., 232, Dawes Road, London, S.W.6, were shown at the exhibition of hand tools arranged by the Chief Engineer's Department, L.N.E.R., at Kings Cross Station a short time ago.

Two examples from the maker's Power Vane series are illustrated. Power Vane tools incorporate motors specially designed for freedom from vibration, the principle of construction being such that there are no pistons, connecting rods, cranks, valves, or eccentric mechanism. These qualities result in a saving on maintenance, as well

as avoiding fatigue to the operator and ensuring smoother holes. A governor in the air intake prevents racing when the tools are running light, and prevents wear and breakage of taps, drills, and reamer bits. When designed for reversible operation, the motors develop equal power in both directions of running.

Ball bearings are used throughout. Lubrication of the motor is effected by a line oiler located in the housing. The gear and governor cases are equipped for grease lubrication.

All types of Power Vane drill and wood-borer in the range can be supplied for various running speeds, the gearing being



*Type 327 woodborer*

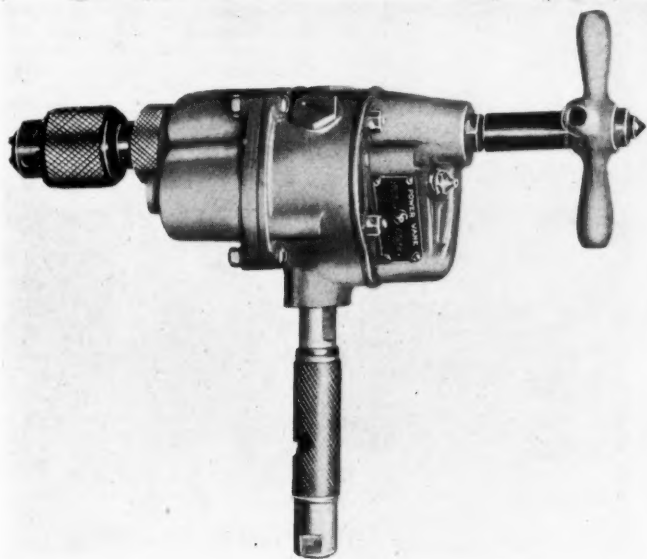
interchangeable. The tools are fitted with air strainers to prevent dirt entering the motor, and throttle parts subject to moisture are made of rust-proof steel. A feature of the construction is that steel inserts are used for screw threads, no threads being cut in aluminium.

### **Power Vane Drills**

The Power Vane drill illustrated is suitable for drilling up to  $\frac{1}{4}$ -in. dia. holes in steel. These drills can be used for wood up to twice the rated capacity for steel. Numerous other sizes of pneumatic drill are available, both for heavier work and for light metal work, and the physical design is varied so that tools can be selected to facilitate use in difficult positions.

The range includes a slow-speed machine, with heavy drilling capacity, specially designed for drilling, reaming, and tapping in narrow and limited spaces, and recommended for reaming locomotive frames and similar work.

The woodborer illustrated is one of a range of powerful lightweight machines for boring in wood up to 4 in. The tool shown is the Type 327-RW, with reversible motor. The overall length is 15 $\frac{1}{2}$  in., weight 28 $\frac{1}{2}$  lb., and the approximate running speed off load is 290 r.p.m.



*Type 310 Power Vane portable drill, shown with feed screw and chuck. A Morse taper is also available*

## Engineering Developments in Brazil

In 1939 a Preparatory Commission in its report to the Government recommended the organisation, with Government and private capital, of a factory for the manufacture of heavy rails, plates, and girders, and also recommended that the Cia. Siderurgica Belgo Mineira should be encouraged in the completion of its installations at Monlevade and Sabará for the production of light girders, iron bars, wire, galvanised tubes, flat iron, and light rails.

It was also suggested that a factory should be encouraged to produce special steel for the making of tools and machines, whilst another should specialise in the making of wheels, axles, and tyres. Yet another factory should be built for the manufacture of wagons, and, later, of locomotives.

The first recommendation has already been carried out with the formation of the Cia. Siderurgica Nacional, and by the construction of a large factory at Volta

Redonda. This is planned to produce rails ranging up to 74.5 kg. per metre. In addition, the Cia. Belgo Mineira has completed its installations at Monlevade and is now producing light rails. The Cia. Siderurgica Nacional will make forged axles.

To complete the programme recommended in 1939, it remains to develop the manufacture of castings and springs for wagons, coaches, and locomotives.

A commission of engineers formed in 1943 arrived at the conclusion that the manufacture of essential railway material could be undertaken in Brazil only after the construction of large installations of a capacity that would assure production at prices capable of resisting competition in normal times. The outcome was the formation, on September 1, 1944, in San Paulo, of the Companhia Brasileiro de Material Ferroviário, for which capital was immediately subscribed. The Paulista and Mogiana Railways are the largest holders, each with 25 per cent. of the capital subscribed.

The new factory is situated in Osasco,

close to San Paulo, and is provided with broad and narrow-gauge sidings. Production of castings for bogies, couplings, buffers, wheels, and springs for wagons, coaches, and locomotives will take place during the current year. The factory also comprises a wagon building shop, already in operation. Plans were drawn up by the American firm of Giffels & Vallet Inc., of Detroit, with the collaboration of the American Steel Foundries, and the Griffin Wheel Company of Chicago, with which agreements have been made for the use of patents, models, and technical assistance.

PORT OF BRISTOL AUTHORITY.—Net revenue for the year to March 31, 1946, was £423,093, and expenditure on net revenue account totalled £473,453, leaving a debit balance of £50,360. The results for 1944-45 showed a credit balance of £1,761. Imports handled in 1945-46 totalled 3,641,005 tons, compared with 6,058,667. Total exports (foreign and coastal) were 1,216,963 tons, compared with 1,386,116.

## Shay Geared Locomotive for Western Maryland Railroad

*A design for operation on grades up to 1 in 10 with a maximum curvature of 22 deg.*

**T**HE Lima Locomotive Works recently completed an important new addition to the Shay geared locomotives for which that company has been responsible, when it delivered to the Western Maryland Railroad a new design having a tractive effort of 59,740 lb. The new engine is for use on a coal-mining branch originally built to a narrow gauge, but subsequently reconstructed to standard gauge and taken over by the Western Maryland in 1929.

The new locomotive, which bears the running number 6, is designed for regular work on grades varying from 1 in 14 to 1 in 10, with a maximum curvature of 22 deg. It can haul trailing loads up to 5,560 tons on the level, at 10 m.p.h., and 156 tons on 1 in 14 gradient at the same speed.

The two-ring boiler, of extended wagon-top type, is 28 ft. 3 in. long overall; the diameter tapers from 80 in. to 62½ in. The pressure is 200 lb. per sq. in., and the

plates are ¾ in. thick; the barrel plate seam is welded. In view of the gradients encountered, a 30-in. steam space is arranged over the firebox crown. The firebox, 9 ft. 6 in. long and 5 ft. 1¼ in. wide (grate area 48½ sq. ft.), has no combustion chamber; the furnace door sheet and back head are welded at the door ring. Flannery flexible stays are used in the breaking zone and outside row of throat sheet stays, and Flannery rigid hollow stays above the mud ring and fire level.

The brick arch is supported by three 3-in. arch tubes. The fuel is bituminous coal. Two injectors having a combined capacity of 7,900 gal. per hour are fitted, and the boiler is protected by two 3-in. safety valves. The total evaporative heating surface is 1,849 sq. ft., and the superheating surface 429 sq. ft.

The main steam pipe, on the right-hand side of the engine, is of cast iron with ball joints, and the exhaust (also on the

same side) enters the smokebox on the bottom centre line.

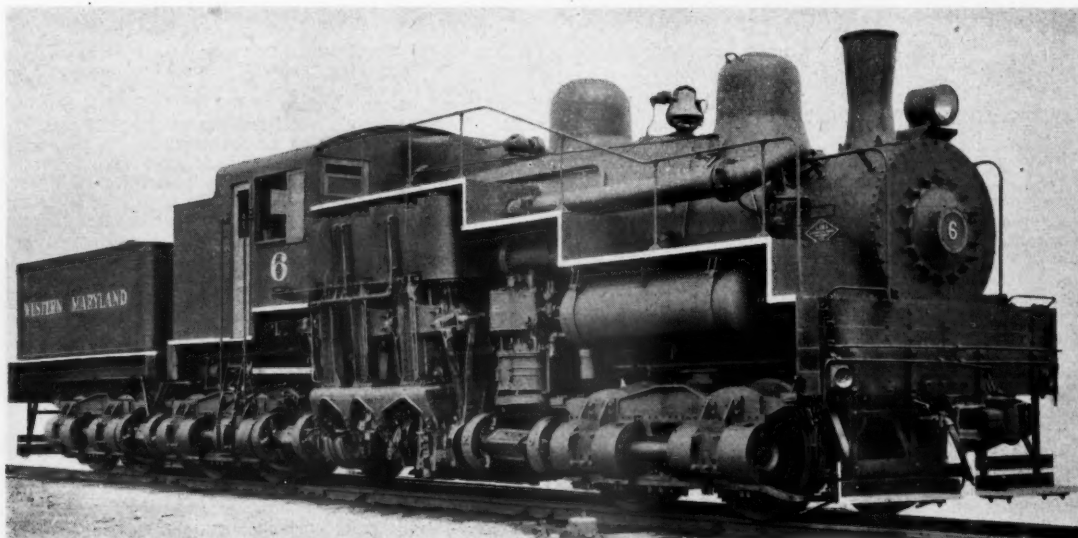
A girder type assembly of welded plates and angles form the main engine frame, which also carries brackets for running boards, air compressor, and air reservoir. The boiler centre line is 14½ in. to the left of the track centre line, an arrangement which compensates for the placing of the machinery on the right-hand side.

A three-cylinder simple engine just in front of the cab drives the lineshaft which transmits the power to three four-wheel trucks, all virtually alike. Two of these trucks are spaced at 29 ft. 6 in. centres below the engine; the third, 13 ft. 10 in. below the centre unit, is under the tender. The engine has 9 in. piston valves, with a maximum travel of 4½ in., and cylinders of 17 in. bore by 18 in. stroke. Stephenson's link motion is used, and a power reverse gear is fitted.

Cast-iron pistons with 3½ in. hammered steel rods are secured by taper fit to cast-steel crossheads working between cast-iron slidebars. Adjustable brasses are fitted to both ends of the connecting rods. The diameter of the crankshaft is 7½ in., and the journals are 7¼ in. by 7 in. Four main bearings in the bedplate support the shaft.



*Shay geared locomotive hauling a coal train from mine to main line on a 3 per cent. descending grade*



*Right side of locomotive showing the vertical three-cylinder engine and lineshaft*

A steel bed casting forms the backbone of the engine, and to it are bolted the three separate vertical engine frames. The cylinders and piston valve chests are cast separately and can be removed independently from the vertical engine frames. Both the bedplate and the vertical frames are bolted to the girder frame at top and bottom frame rails.

Three pairs of universal couplings are inserted in the lineshaft transmitting the power to the trucks; each comprises two forked ends or horns forming a universal joint. Slip joints of square cross-section, between each pair of couplings, allow sufficient "swing" of the trucks for negotiating 22 deg. curves. The horn couplings, which are made of cast steel, are shrunk on and keyed.

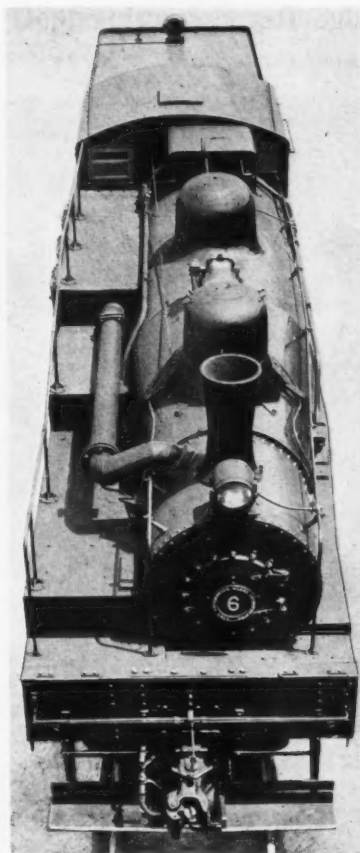
#### Truck Frames and Bolsters

The three truck frames comprise cast-steel side members, and the bolsters are of 12-in. 40-lb. channels with 1½-in. cover plates. Coil springs, 36 in number, between the bolsters, carry the load. The wheels on the right-hand side have cast-steel centres to take the rim of the driving gear.

Steel tyres are shrunk on to the wheel centres. All wheels are 4 ft. in diameter, and the carbon steel axles have 8½ in. by 10 in. journals, oil lubricated.

Special axleboxes are used on the right-hand side, to accommodate both axle and lineshaft bearings; the latter are 6½ in. by 14 in. The pinions are located ahead of each axle and are keyed to the lineshaft. With 20 teeth on the pinion and 49 on the gear, the gear ratio is 2.45 to 1. The maximum speed is 22 m.p.h., at which the engine is doing 377 r.p.m.

The cab and the coal space (capacity 9 tons) are built as one unit. The water tank holds 6,000 gal. A hinged connection between engine and tender comprises a double-jaw casting at the rear of the engine frame, into which a rigid bar riveted to the tender frame, and a conventional drawbar, are inserted. A draw-



The boiler centre line of the Shay geared locomotive is 14½ in. to the left of the track centre line

bar pin in the engine frame casting passes through both bars. Considerable movement is allowed between engine and tender on vertical curves.

We are indebted to the Lima Locomotive Works for the photographs reproduced in this article and to our contemporary, the *Railway Age*, for the information.

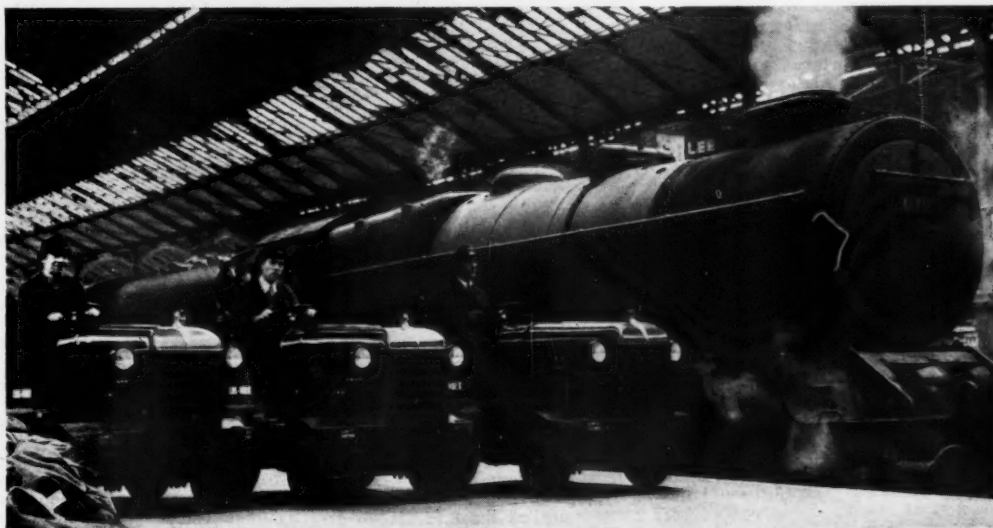
#### Principal Dimensions

The principal dimensions of the locomotive are as follow:—

Cylinders (3), dia.	17 in.
Piston stroke	18 in.
Piston valve, dia.	9 in.
Driving wheels, dia.	4 ft.
Wheelbase:—	
Engine, total	35 ft. 2 in.
Engine and tender, total	49 ft.
Truck wheelbase (rigid)	5 ft. 8 in.
Working pressure	200 lb. per sq. in.
Boiler, dia. outside first ring	5 ft. 2½ in.
Length over tubeplates	13 ft. 6 in.
Length of firebox	9 ft. 6 in.
Width of firebox	5 ft. 1½ in.
Heating surface:—	
Firebox and 3 3-in. arch tubes	226 sq. ft.
156 tubes (2 in.) and 28 flues (5½ in.)	1,623 sq. ft.
Total evaporative	1,849 sq. ft.
Superheater	429 sq. ft.
Combined total...	2,278 sq. ft.
Grate area	48.5 sq. ft.
Tractive effort at 85 per cent. boiler pressure	59,740 lb.
Weight in working order (all adhesive)	144.5 tons
Water capacity	6,000 gal.
Fuel capacity	9 tons

**NEW PLATFORM TRACTORS.**—The L.M.S.R. is using new 30-cwt. tractors for station platform work and in Crewe works. Designed by Lansing Bagnall & Co. Ltd. and known as model "A," they are successors to the "Imp" type by the same maker, are of 12 h.p., and can haul six fully-laden trolleys. They are powered by a 4-cylinder Morris industrial petrol engine, and have a maximum speed of 10 m.p.h. at 2,000 r.p.m. A lifting eye-bolt is fitted to the top of the engine to facilitate its removal. The frame is of all-welded construction and there is also electric lighting available for night work.

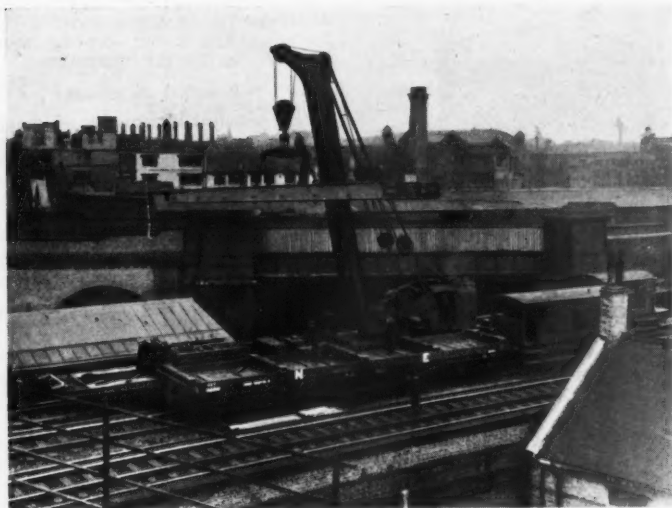
#### New Station Platform Tractors at Euston



Three new 30-cwt. station tractors at Euston, L.M.S.R. (see paragraph on this page)

## Southern Railway Bridge Reconstruction

*Renewals at Blackfriars and Camberwell*



*A breakdown crane raising one of the new girders*

**A**FTER approximately 80 years of service, Southern Railway Bridge No. 402, carrying the local and main City lines over the Charing Cross lines near Waterloo (Eastern Section) Station, is being reconstructed.

The present bridge has four spans comprising main girders 170-ft. in length which are continuous over the intermediate supports, with closely spaced cross-girders, longitudinal wheel timbers carrying the rails, and timber decking.

It is evident that at one time the bridge comprised three spans, and that the columns located between the tracks of the Charing Cross lines, together with relieving girders, were added later as a strengthening measure; apart from this major operation the structure has been repaired from time to time to restore members wasted by corrosion.

The new bridge comprises trough girders braced together and supporting wheel timbers and rails. The new decking is to consist of pre-cast concrete units, and wherever possible contact between timber and steel has been eliminated, to ensure freedom for inspection and painting of the steelwork.

At wheel timber seatings, where the new steel is in permanent contact with timber, additional thickness of steel has been provided to safeguard against the reduction of section due to the corrosion which inevitably will develop.

The essential reconstruction is being

undertaken during six week-end possessions of the lines from 3 p.m. Saturday afternoon until 6 a.m. Monday morning, during which periods rail traffic will be confined either to the local or main lines as required. When the local lines are occupied a bus service will be introduced to serve the Elephant & Castle Station.

On each of these main week-end possessions, a span of the existing bridge will be cut into sections by oxy-acetylene cutting plant, for removal by steam crane and loading on rail wagons.

Immediately the portion of old bridge has been removed, the new girder work will be placed in position in large sections weighing approximately 17 tons each; thereafter pre-cast concrete deck units will be placed, and the permanent way reinstated. The erection of the bridge by this method requires the use of the company's 45-ton and 36-ton breakdown cranes, and because of the congestion of the site, considerable attention to detail has been necessary in planning the work.

### Medlar Street Bridge

Concurrently with this work and under the same occupation of line, opportunity is being taken to reconstruct Bridge No. 367 over Medlar Street at Camberwell. This bridge was seriously damaged by enemy action in 1944, since when a temporary structure has carried the essential traffic pending the erection of a new bridge.



*Work in progress on Bridge No. 402, which carries local and main city lines over the Charing Cross lines at Blackfriars*

**PRESERVATION OF HISTORIC L.M.S.R. LOCOMOTIVES.**—The L.M.S.R. has decided to continue the preservation on grounds of historic value of six veteran locomotives, of which the combined lives amount to 414 years. The engines concerned and the places at which they will be preserved are as follow: At Crewe Locomotive Works, the former L.N.W.R. locomotives *Cornwall* and *Hardwicke*; at Derby Locomotive Works, the former Midland Railway express engine No. 118; at St. Rollox Works,

Glasgow, the ex-Caledonian locomotive No. 123 (now L.M.S.R. No. 14010), and the ex-Highland 4-6-0 No. 103. It is intended to accommodate temporarily at Horwich Works the four-wheel "Copper-nob" locomotive introduced on the Furness Railway in 1846, pending eventual exhibition at Barrow-in-Furness. Difficulties of accommodation and costs of upkeep have compelled the L.M.S.R. to decline a number of requests for the preservation of other historic locomotives.

**WHITE PASS & YUKON RAILWAY COMPANY.**—Proposals for repaying the £315,200 of 5 per cent. consolidated mortgage debenture stock of this company have been delayed in consequence of an approach having been made by a third party with a view to purchasing the company's assets. The prospective purchasers have been granted until the end of October to complete investigations. The company holds the securities of certain railways in Alaska, but takes no part in their management or operation.

## L.N.E.R. Engineering Department Manuals

*Booklets for the use of railway staff*



*Much time will be spent in finding instruments, papers, etc., on the untidy drawing table shown in the background*

**T**HERE is today a tendency for large industrial concerns to provide practice manuals and textbooks for the instruction of their staffs. Railways were probably the pioneers of this activity, as from the earliest times it was found necessary to lay down rules and regulations governing the movement of traffic and to provide each member of the staff with a copy of these regulations.

### Difficulty of Supervision

This was needful from the safety aspect, and also desirable in view of the difficulty of supervising adequately the staff, because of dispersal along the line. The codification of practice under definite rules is a substitute, on railways, for the direct type of supervision such as is possible in a factory.

Railway rule books have been subject to continuous modification and expansion for over 100 years; and they have been supplemented by other publications such as the Appendix to the Rules & Regulations and Working Timetable, issued by each company.

In recent years manuals of standard practice have been issued by various departments, operating, commercial, and technical. The Chief Engineer's Department of the L.N.E.R., for example, has compiled a useful series which covers a wide field. A list of the titles of these manuals is set out below:—

- "Standard Instructions for the Preparation of Plans."
- "Cabinet System of Works Control."
- "Examination of Structures."
- "Maintenance of Mechanical Signalling Apparatus."
- "Standard Methods of Earthing Signalling Apparatus, etc."
- "Guide to Procedure for the Control and Custody of Sundry and Signal and Telegraph Material."
- "Speed, Curvature and Cant—Simplified Speed Tables."
- "Workmanship, Tidiness, and Efficiency" (Illustrated).
- "D.C. Track Circuits."
- "Curves."
- "Check Rails and Chairs."
- "Programmed Maintenance of Per-

manent Way (for use of Permanent Way Inspectors)."

"Programmed Maintenance of Permanent Way (for use of Gangers)."

"Mineral Workings Affecting Railway Property."

The adoption of standard practices throughout the whole of the L.N.E.R. system from London to Lossiemouth has been a task of no mean order. The amalgamation into one system of the Engineering Departments of so many constituent companies, each with its own practices and standards of maintenance, was a formidable problem, which in recent years has been carried a stage further by an administrative reorganisation whereby the three Area Engineers, who were formerly responsible to the Divisional General Managers in London, York, and Edinburgh, have become responsible to an all-line Chief Engineer, who in turn reports direct to the Chief General Manager. The assistance given to all the departments concerned by the widespread issue of practice manuals has been of great value.

### Timing of Routine

The scope of the booklets is in most cases adequately indicated by their titles. Those dealing with maintenance set out the time intervals at which the various inspections and routine jobs are to be undertaken, and in some cases describe how the work should be done.

The booklet that holds the most general interest is probably that on "Workmanship, Tidiness, and Efficiency," which is mainly composed of illustrations showing the "right" and the "wrong" way. Examples are given of permanent way, showing well-maintained and poorly-maintained track, of good and bad bricklaying and plastering, glazing, and painting. An interesting illustration (see page 130) shows a modern type of platelayer's hut built to the new standards laid down in recent years, contrasted with the old-fashioned wooden shacks which disfigure so many of our railway lines.

The theme that tidiness evokes efficiency is carried into the layout of stores depots, into the drawing office, and even into the sphere of administration, where a tidy desk is shown compared with one littered with papers in a manner that is unfortunately too prevalent.

The accompanying illustrations show the graphic manner in which the lesson is presented, and give some idea of the wide scope of this excellent booklet.



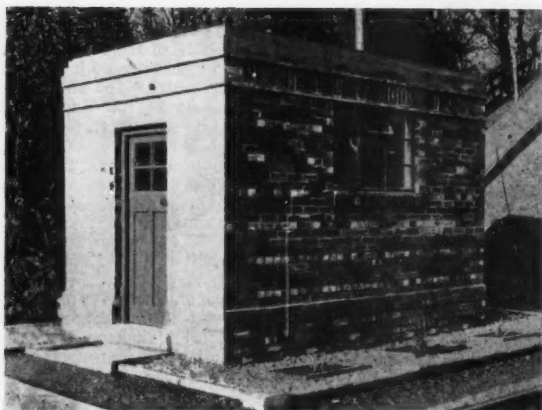
*Good plumbing*



*Bad plumbing*

## Right and Wrong

(See article on previous page)



Showing a modern type of plate-layer's hut in its neat surroundings



This type of hut makes a bad impression on the travelling public



A tidy office desk where papers and notes will not be overlooked



An untidy desk where much time will be wasted in hunting for information

**MOTOR FIRE IN SOUTHERN RAILWAY ELECTRIC TRAIN.**—One of the motors in the middle of a Southern Railway multiple-unit train from Guildford to Waterloo was seen to be emitting smoke and flames when the train was approaching Wimbledon Station on July 26. The train was stopped and the current was cut off from the motor affected, after which the train was able to run slowly into Wimbledon Station. The Southern Railway stated that the trouble arose from a broken spring causing a short circuit.

**L.N.E.R. HARWICH—ANTWERP SERVICE RESTORED.**—The L.N.E.R. steamship service between Harwich (Parkeston Quay) and Antwerp, which had been suspended since 1939, was restored on July 29. Sailings from Parkeston, for the time being, are on Mondays and Thursdays, and from Antwerp on Wednesdays and Saturdays. In the outward direction passengers leave Liverpool Street at 3 p.m., arriving at Antwerp at about 9 a.m. the next day. A special train is provided by the Belgian National Railways for the conveyance of passengers from the quayside to Brussels

North. The return service, likewise served by a special train from Brussels, leaves Antwerp at 4 p.m. (Belgian Double Summer Time), arriving at Liverpool Street at 10.15 a.m. on Thursdays and 9.15 a.m. on Sundays. Later it is proposed to allocate another vessel to the service.

**IMPROVED ROUTE INDICATORS FOR LONDON TRANSPORT VEHICLES.**—A special committee of London Transport engineers has been making a close study of the route numbers and destination indicators used on buses, coaches, and trolleybuses; as a result it has been decided to introduce a number of changes when existing destination blinds need replacing. The present route number, destination and three lines of route points on front destination blinds will be reduced to route number, destination and one line of route points, thereby enabling large type to be used with better spacing. Side destination blinds will be changed from five lines of route points, to the route number and three lines of route points. By including the route number on the blind, the small side stencils and bracket holders are no longer necessary, and will be removed. The present display of route

number, destination and three lines of route points on single-deck buses will be reduced to route number, destination and two lines of route points. This will permit the use of a larger size of type. The side destination blind on trolley-buses will be modified from five lines of route points to the route number and four lines of route points, and as the route number will be included on the blind the small side stencils and bracket holders are no longer necessary, and will be removed.

**LONDON TRANSPORT VEHICLES IN MOTOR INDUSTRIES JUBILEE DAY PROCESSION.**—Four London Transport vehicles figured in the Motor Industries Jubilee Day procession, organised by the Society of Motor Manufacturers and Traders, in London on July 27. The four vehicles were: A typical London Transport bus of the "R.T." type, as shown in the mechanised column of the recent Victory Day parade; "Old Bill," one of the famous "B" type buses which took part in the Ancre, Ypres, Somme, and Amiens campaigns during the first great war; a typical Green Line coach; and a master breakdown lorry of the "L.S." six-wheel type.

## RAILWAY NEWS SECTION

## PERSONAL

## RETIREMENT OF MR. KENELM KERR

Mr. Kenelm Kerr, O.B.E., Assistant General Manager (Staff), L.N.E.R., retired on July 13 from that position which he had held for over 23 years.

Mr. J. Brewster, Chief Clerk, District Goods & Passenger Manager's Office, Edinburgh, L.M.S.R., who, as recorded in our June 14 issue, has been appointed District Goods & Passenger Manager, Edinburgh, began his railway career in the Goods Department of the Caledonian Railway. After a number of years' service in that department at Stirling, Bridge of Allan, Doune and Auchtermarder, he was transferred in 1905 to the Chief Goods Manager's Office, Glasgow, and had ex-

Railway. At the time of his death he was returning from a trip on the Continent, during which he had been investigating the possibilities of resumed emigration, and the movement of displaced persons.

The King on July 9 at Buckingham Palace conferred the honour of knighthood on Mr. Henry Ward Lionel Kearns, C.B.E., Director-General of Production Services, Ministry of Supply. Chairman & Managing Director, H. W. Kearns & Co. Ltd. His Majesty's approval of this knighthood was signified on June 13, 1946.

Brigadier James Storar, C.B.E., M.I.Mech.E., a Director of the Great Western of Brazil Railway Co. Ltd., paid a visit last February to that company's system in the north-east of Brazil, and,

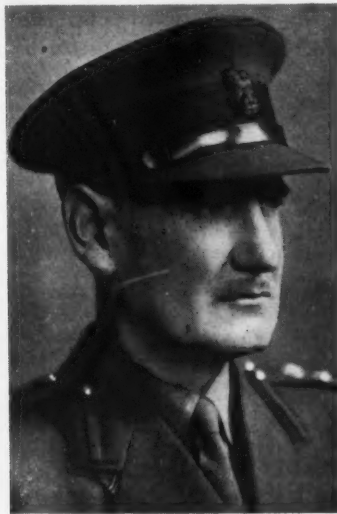
and was granted the rank of Lt-Colonel, with an Ordnance, Mechanical & Electrical 1st Class appointment; and in 1941 he was appointed to command the Chilwell Depot, with the rank of Colonel. In 1942 he was posted to the War Office as Assistant Director, Mechanical Engineering; and in 1943 was appointed Deputy-Director, with the rank of Brigadier, responsible for the static establishments of the Royal Electrical & Mechanical Engineers in Great Britain and Northern Ireland.

Mr. Arthur Dean, M.Sc., D.I.C., M.Inst.C.E., Maintenance Engineer, Southern Railway, who, as recorded in our July 5 issue, has been appointed Assistant Chief Civil Engineer, as from August 1, was educated at Halifax Technical College, and at the City & Guilds (Engineer-



Mr. J. Brewster

Appointed District Goods & Passenger Manager, Edinburgh, L.M.S.R.



Brigadier James Storar

Director, Great Western of Brazil Railway Co. Ltd., who recently visited Brazil and the U.S.A.



Mr. Arthur Dean

Appointed Assistant Chief Civil Engineer, Southern Railway

perience in the General, Transit, Rates, and Staff & Statistical Departments. He was appointed Chief Goods Clerk, District Goods & Passenger Manager's Office, Edinburgh, L.M.S.R., in 1928, and became Chief Clerk for the whole of that office in 1935. Mr. Brewster has acted as a member of the Scottish Southern Road-Rail Committee since its formation.

Mr. W. C. Cocksedge, Stores Superintendent, London, Buenos Ayres & Pacific Railway, has retired, after 46 years' service. Mr. Kenneth Cole has been appointed to succeed him.

Major M. P. Sells is relinquishing his position as Chief Mechanical Engineer, Rhodesia Railways, on medical grounds, from August 31, and is returning to Great Britain.

The Minister of Transport has appointed Mr. H. F. Hill and Mr. G. I. Morris to be Assistant Secretaries. Mr. F. C. Hampden will be his Private Secretary in place of Mr. Morris.

We regret to record the death, at Aerdenhout, Holland, on July 21, at the age of 64, of Dr. J. D. Cameron, Ph.D., European Colonisation Manager, Canadian Pacific

after consulting with the company's representatives in Rio de Janeiro, proceeded to the U.S.A., where he studied American locomotive practice before returning to England in April. Brigadier Storar, who is 51 years of age, is also a Director of Nyasaland Railways Limited, Central Africa Railway Co. Ltd., and Vulcan Foundry Limited. He was a pupil of Robert Stephenson & Co. Ltd., Darlington. He was mobilised in the Territorials in July, 1914, and ultimately commanded a company of the Northumberland Fusiliers. In 1915 he transferred to the Railway Operating Division, with the rank of Captain, and was appointed Running Shed Officer at Mealt; and he was afterwards second-in-command of the Calais Docks and Channel Ferry. On demobilisation in 1919 he was appointed District Locomotive Superintendent, Rhodesia Railways. He acted as Works Manager, and sat on a committee to consider a scheme (adopted in 1925) for the amalgamation of the Traffic, Locomotive and Engineering Departments, based on the American system. From 1924-40 he was Chief Mechanical Engineer, Nyasaland Railways, in charge both of their rolling stock and steamship services. During the absence of the General Manager he acted in his stead. In 1940 he left Africa to rejoin the Army,

ing) College. He began his career in 1923 with John Butler & Co. Ltd., the constructional engineers of Stanningley, Leeds, and in 1924 joined the Southern Railway staff as a draughtsman in the Bridge Department. Later he became a surveyor on strengthening, reconstruction, renewal, and testing of bridges. In January, 1936, Mr. Dean became Assistant Divisional Engineer, London West, and in October, 1941, he was appointed Divisional Engineer, London East. He became Assistant Engineer (Maintenance) in April, 1942, and Maintenance Engineer in April, 1944.

Mr. A. B. Chester, B.Sc. (Eng.), A.C.G.I., D.I.C., M.Inst.C.E., Assistant Engineer (General), Southern Railway, who, as recorded in our July 5 issue, has been appointed New Works Engineer, as from August 1, received his engineering training at the City & Guilds Central Technical College. In 1911 he joined the former L.S.W.R., as an assistant, first on new works and then on design in the head office at Waterloo. Three years later he was appointed Resident Engineer on alterations at Nine Elms, and afterwards an assistant on the original electrification of the L.S.W.R. He enlisted in a Signal Company, R.E., in 1914, and was commissioned in a Field Company, R.E., in the

**Mr. A. B. Chester**Appointed New Works Engineer,  
Southern Railway**Mr. H. L. Hopkins**Appointed District Goods & Passenger Manager,  
Lincoln, L.N.E.R.**Mr. F. Sparkes**Appointed District Operating Manager,  
Gloucester, L.M.S.R.

next year; he served in France in the 512th Field Company (56th Division). In 1917 Mr. Chester was transferred to a Railway Construction Company, R.E., and at the end of hostilities served on the staff of the Chief Railway Construction Engineer at G.H.Q.; he was demobilised with the rank of Captain. On rejoining the L.S.W.R., he was employed on the staff of the Permanent Way Assistant at Waterloo, and later was appointed Resident Engineer on the reconstruction and re-organisation of the permanent way depot at Redbridge in 1922. After a period as Resident Engineer on various works in Hampshire, including the reconstruction of Southampton Terminus Station and alterations at Bournemouth Central, Mr. Chester returned in 1929 to Waterloo to assist the Chief Engineer in connection with the Charing Cross bridge scheme. In 1931 he became Assistant Divisional Engineer, London East, and in 1936, Central Divisional Engineer. As a Lt.-Colonel, R.E. (Supplementary

Reserve), he was called up on the outbreak of the recent war, and served as Assistant Director of Transportation Stores in France from September, 1939, until the evacuation in June, 1940. He was released for home railway service in August, 1940, and was appointed General Assistant to the Chief Engineer. He was recalled to the Army in July, 1943, and served with the rank of Colonel at the War Office on the staff of the Director of Transportation in charge of Transportation Stores. He was demobilised in October, 1945. In April, 1944, Mr. Chester was appointed Assistant Engineer (General), Southern Railway.

Mr. H. L. Hopkins, C.I.E., O.B.E., Assistant District Goods & Passenger Manager, Ipswich, L.N.E.R., who, as recorded in our July 5 issue, has been appointed District Goods & Passenger Manager, Lincoln, was educated at Archbishop Holgate's Grammar School, York,

and joined the N.E.R. in 1919, after military service. Subsequent to training as a traffic apprentice, he was appointed Assistant Yardmaster, Hull (West) in 1927; Yardmaster, Carlisle, in 1933; Yardmaster, Gateshead, in 1934; Goods Agent, Leeds, in 1936; and Goods Agent, Leicester, in 1938. Mr. Hopkins had been commissioned in the R.E. (Supplementary Reserve) in 1927, and he was called to the colours on September 3, 1939. He served with No. 1 (L.N.E.R.) Docks Group, R.E., as Docks Superintendent, Nantes, up to the time of the evacuation. In November, 1940, he proceeded to Egypt as Assistant Director of Docks, G.H.Q., M.E.F. In February, 1941, as Deputy-Director of Transportation, he was in charge of transportation matters with the British forces in Greece; he returned, on evacuation, to Egypt as Assistant Director of Docks. He transferred to India in 1942 as Assistant Director of Transportation, and, latterly, served as Deputy-Director for Transporta-

**Mr. T. H. Hollingsworth**Appointed General & Staff Assistant to  
Chief Goods Manager, G.W.R.**Mr. Alfred Bond**Appointed Assistant to Chief  
Goods Manager, G.W.R.**Mr. J. R. R. Pedley**Appointed Area Technical Assistant, Signal  
& Telegraph Department, Leeds, L.M.S.R.

tion, G.H.Q., New Delhi. In June, 1944, his services were lent to the Bombay Port Trust as General Manager (Docks & Railways). Mr. Hopkins resumed service with the L.N.E.R. in April, 1946, as Assistant District Goods & Passenger Manager, Ipswich. He was made an O.B.E. in the New Year Honours, 1942, for services in Greece, and a C.I.E. in the King's Birthday Honours, 1946, for services with the Bombay Port Trust.

Mr. F. Sparkes, District Controller, Gloucester, L.M.S.R., who, as recorded in our June 14 issue, has been appointed District Operating Manager, Gloucester, entered the service of the Midland Railway in the Locomotive Department at Derby in 1904. Shortly after the commencement of the Midland control system Mr. Sparkes was removed to the Masborough Control Office in 1909, and subsequently held positions at Derby, Nottingham and Coalville. He became Assistant District Controller at Peterborough in 1915, and, after holding similar positions at Skipton, Nottingham and Kentish Town, was transferred to the staff of the Chief General Superintendent at Derby as Relief District Controller in 1927. In 1934 he was made District Controller, Skipton, and in 1942 was transferred to Gloucester in a similar capacity.

Mr. T. H. Hollingsworth, M.Inst.T., District Goods Manager, Bristol, Great Western Railway, who, as recorded in our July 5 issue, has been appointed General & Staff Assistant to Chief Goods Manager, Paddington, joined the company in 1913 at Cardiff Goods Station. He served with H.M. Forces for 3½ years in the war of 1914-18. In 1923 he was selected for special training, covering all departments, until 1927. After a period at Aberdare Goods Station, in December, 1929, Mr. Hollingsworth served on a staff investigation committee. From then until December, 1932, he was attached to the Chief Goods Manager's Office, gaining experience in staff work and as Outdoor Representative, Working Department. From January, 1933, he was District Cartage Clerk, Swansea, until he joined the committee for the reorganisation of the outdoor work at Paddington Goods Station and depots. From 1934 until 1936 he was in charge of the Staff Investigation Committee of the Chief Goods Manager, and in 1936 he returned to the Chief Goods Manager's Office as Chief Clerk, Development Department. During his tenure of that office Mr. Hollingsworth was the "all-line" organiser and examiner of the classes in salesmanship. After four years as Assistant District Goods Manager, Cardiff, he was appointed District Goods Manager, Worcester, in November, 1942; and in May, 1944, he was made District Goods Manager, Bristol. Mr. Hollingsworth has always taken an active interest in the G.W.R. Lecture & Debating Society, and achieved some success in former years in the "all-line" essay competitions sponsored by that body; he was awarded First Prize and Gold Medal in the 1929-30 session for his essay on "The Private Owner's Wagon Problem"; and on two occasions he gained Second Prize. Mr. Hollingsworth is Vice-Chairman of the Western Section of the Institute of Transport. He is a member of the Council of the Bristol Chamber of Commerce, and, while it was functioning, was a member of the Bristol Port Emergency Committee. He is the present Chairman of the Road-Rail Regional Conference.

Mr. Alfred Bond, Indoor Assistant to Chief Goods Manager, Paddington, Great Western Railway, who, as recorded in our July 5 issue, has been appointed Assistant to Chief Goods Manager, Paddington, joined the company in the Horse Department in 1899, and three years later was transferred to the Chief Goods Manager's Office, where he has had a long experience of various sections of the work. In 1916 Mr. Bond went with the B.E.F. to France, and was engaged in military service for three years. On his return to the G.W.R. in 1919 he specialised for a time in investigations concerning the use of mechanical appliances at goods stations. He was responsible for the formation of the No. 4 Railway Operating Company, Royal Engineers (Supplementary Reserve), which he commanded until its disbandment. In 1927 Mr. Bond was placed in charge of the New Works Section, Chief Goods Manager's Office. In 1936 he was given control of the Parliamentary & Special Subjects Section. He was appointed Chief Clerk to the Chief Goods Manager in June, 1938, and in August, 1939, became Indoor Assistant to Chief Goods Manager. When it was considered necessary, in the early days of the recent war, to evacuate the staff from Paddington offices, Mr. Bond was placed in control of the evacuated headquarters until the recent rehabilitation of the staff.

Mr. J. R. R. Pedley, Area Technical Assistant, Signal & Telegraph Engineer's Department, Manchester, L.M.S.R., who, as recorded in our June 14 issue, has been appointed Area Technical Assistant, Signal & Telegraph Engineer's Department, Leeds, joined the Lancashire & Yorkshire Railway in the Telegraph Department, Manchester (Victoria), in 1920. In 1930 he was appointed Telegraph Inspector, Manchester (Victoria), after the opening of the Manchester (Victoria & Exchange) power signalling installation, with which work he had been associated from the commencement, having been the District Telegraph Lineman of the area embraced by the power installation. His appointment as Signal & Telegraph Inspector, Miles Platting, in 1935, created the first of those dual positions in that area, and included under maintenance all communications at Manchester (Victoria) and the Manchester Divisional Control Office. Mr. Pedley was appointed Area Technical Assistant, Manchester (Victoria), in April, 1942.

#### PRESENTATION TO MR. KENELM KERR

To mark the occasion of his retirement (recorded on page 131), Mr. Kenelm Kerr, Assistant General Manager (Staff), L.N.E.R., was entertained to luncheon at the Charing Cross Hotel recently, and was presented with a cigarette case by his colleagues associated with the Railways Staff Conference and other negotiating bodies on which Mr. Kerr has served for many years. The presentation was made by Mr. O. W. Cromwell, Chief Officer for Labour & Establishment, Southern Railway (Chairman, Railways Staff Conference), supported by Mr. G. L. Darbyshire, Vice-President, L.M.S.R. (former Chairman, Railways Staff Conference) and the other officers present, all of whom paid tribute to the work of Mr. Kerr during his association with the Railways Staff Conference, both as a member, and during the ten years of his Chairmanship, of that body; particular reference was made to his work in connection with the proceedings leading up to Industrial Court Decision No. 728, dated July 8, 1922, and the establishment of the Scheme

of Machinery of Negotiation for Railway Staff, dated February 26, 1935. Mrs. Kerr's name was coupled with that of Mr. Kerr by those present, who expressed their wishes that both would enjoy good health and a long and happy retirement. In addition to Mr. Kerr, Mr. Cromwell and Mr. Darbyshire, those present were:—

Messrs. H. Adams Clarke, Chief Staff & Establishment Officer, G.W.R.; H. J. Comber, Chief Officer for Labour & Establishment, L.M.S.R.; A. C. Ingram, Chief Staff Officer, L.P.T.B.; H. H. Halliday, Principal Assistant (Staff) to Chief General Manager, L.N.E.R.; S. J. Marchant, Principal Assistant to Chief Officer for Labour & Establishment, L.M.S.R.; F. Gilbert, Deputy Chief Officer for Labour & Establishment, Southern Railway; R. Burgoyne, Assistant Chief Staff & Establishment Officer, G.W.R.; and H. Aidley, Secretary, Railways Staff Conference.

The late Mr. Charles Kingston Everitt, who was Chairman of Edgar Allen & Co. Ltd., left £34,401.

Mr. I. L. Gray, Area Manager (Cardiff & Barry), Western Welsh Omnibus Co. Ltd., has been appointed General Manager, Hebble Motor Services Limited.

Mr. James E. North, Refreshment Room District Manager (Manchester), has retired from the L.N.E.R. after 45 years' service.

Mr. Hugh Warren, Managing Director of the British Thomson-Houston Co. Ltd., and formerly Director of the company's research and engineering, has received the degree of Doctor of Science, *Honoris Causa*, at Birmingham University.

We regret to record the death on July 12, in his 72nd year, of Mr. H. H. Asbridge, M.B.E., M.I.Mech.E., a Director of the Churchill Machine Tool Co. Ltd. since 1923. Among many other activities, Mr. Asbridge designed a wide range of precision grinding machines for railway work.

Recently the Railroad Division of the American Society of Mechanical Engineers was host at a dinner, at which Mr. W. S. Graff-Baker (Chief Mechanical Engineer, Railways, London Passenger Transport Board), President, Institution of Locomotive Engineers, 1944-46, presented the Gold Medal of the Institution to Dr. L. K. Sillcox, First Vice-President, New York Air Brake Company, for his paper "Power to Pull," presented to the Institution in 1942 (an abstract of which appeared in *The Railway Gazette* of August 7, 1942). Mr. Robert Yarnall, President, American Society of Mechanical Engineers, presided, and welcomed Mr. Graff-Baker. Mr. Graff-Baker, in presenting the medal, expressed the Institution's appreciation of Dr. Sillcox's paper. Among those present were:—

Messrs. Duncan Fraser, Chairman, R. B. McColl, President, and J. B. Ennis, Senior Vice-President, American Locomotive Company; General Charles R. Gross, Chairman, New York City Board of Transportation; Messrs. William M. Sheehan, former Chairman, Railroad Division, American Society of Mechanical Engineers; G. W. Alcock, President, Franklin Railway Supply Co. Inc.; Colonel C. E. Davies, Secretary, American Society of Mechanical Engineers; Messrs. F. A. Schaff, President, Superheater Company (U.S.A.); P. W. Kiefer, Chief Engineer, Motive Power & Rolling Stock, New York Central System; W. R. Elsey, Assistant Vice-President, Pennsylvania Railroad; Lawford H. Fry, former Chairman, Railroad Division, American Society of Mechanical Engineers;

T. D. Slattery, General Traffic Manager, Associated British & Irish Railways Incorporated, New York; F. X. Sullivan, Commissioner, New York City Board of Transportation; C. H. Beck, General Sales Manager, Westinghouse Air Brake Company.

Mr. Jacques Abady, K.C., who has been acting as Registrar, Railway Rates Tribunal, during a period of emergency, has resigned. The Tribunal states that the name of his successor will be announced in due course.

Mr. Sidney E. Garcke, C.B.E., has accepted the presidency of the Omnibus Society for the ensuing session.

Mr. Roger Gibb, whose death we recorded in our July 26 issue, was the son of Sir George Gibb, a former General Manager of the North Eastern Railway. Sir George Gibb's father, Mr. Alexander Gibb, was at one time Engineer to the Great North of Scotland Railway.

#### SOUTHERN RAILWAY APPOINTMENTS

Mr. J. R. Turk to be Special Assistant, Deepdene, Chief Accountant's Department.  
Mr. K. F. A. Linton to be Senior Chemist, Wimbledon, Chief Civil Engineer's Department.

#### L.N.E.R. APPOINTMENTS

Mr. L. Preston, Assistant to Engineer (Signals), Edinburgh, to be Chief Assistant (Signals), Engineer's Office, London.  
Mr. E. G. Brentnall, Chief Assistant (Signals), Engineer's Office, London, to be Assistant to Engineer (Signals), Edinburgh.  
Mr. G. B. Gray, Assistant District Goods & Passenger Manager, Lincoln, to be Assistant District Goods Manager, Manchester.  
Mr. M. D. Thompson, who has been acting as District Goods & Passenger Manager, Cambridge, since July, 1944, has been confirmed in the post on a permanent basis.

#### PRESENTATION TO MR. R. J. M. INGLIS

On July 24 there was a cheerful gathering of London & North Eastern Railway officers, past and present, at the Great Eastern Hotel, Liverpool Street, E.C., to do honour to Mr. R. J. M. Inglis, C.I.E., who, as already recorded, recently retired from the post of Divisional General Manager, Scottish Area. Sir Charles H. Newton, Chief General Manager, occupied the chair at luncheon, and afterwards called on Mr. C. M. Jenkin Jones, Divisional General Manager, North Eastern Area, to voice the feelings of the assembled company towards their guest. This Mr. Jenkin Jones did in a humorous style which delighted his audience. He described the work Mr. Inglis had done as an engineer and as a traffic officer, mentioning specially the part Mr. Inglis had taken on an important Government commission in India during the war. He said that in the course of his travels Mr. Inglis had been at pains to get into touch with L.N.E.R. men who were serving abroad, and had done a great deal to encourage them in carrying out their onerous duties. Sir Charles Newton then presented Mr. Inglis with a gift from his brother officers, and wished him long life and much happiness in retirement. In returning thanks, Mr. Inglis gave some interesting reminiscences of his early career, and then went on to explain a few of the difficulties which beset the British zone of Germany where he is now in control of the Transport Section. The arrangements for this delightful

occasion were made by Mr. T. F. Cameron, who has succeeded Mr. Inglis as Divisional General Manager, Scottish Area.

#### L.M.S.R. STAFF CHANGES

Mr. E. W. H. Powell, Assistant District Goods Manager, Wolverhampton, to be Assistant to Chief Commercial Manager (Goods), Watford H.Q., in place of Mr. G. E. Curtis, promoted.

Mr. E. A. Parnell, District Controller, Rotherham (Masborough), to be District Operating Manager, Rotherham.

Mr. A. H. Madden, Assistant District Operating Manager, Leeds, to be District Operating Manager, Wakefield.

Mr. D. W. Sanford, Senior Technical Assistant, Chief Mechanical Engineer's Department, Derby H.Q., to be Superintending Engineer, Locomotive Testing Station, Rugby (L.M.S.R. & L.N.E.R.).

Mr. W. M. Sangster, District Locomotive Superintendent, Shrewsbury, to be District Locomotive Superintendent, Longsight, in place of Mr. J. F. Burge, transferred.

Mr. C. S. Longdale, Assistant, Office of Superintendent of Motive Power, Watford H.Q., succeeding Mr. W. M. Sangster as District Locomotive Superintendent, Shrewsbury.

Mr. A. F. Fielding, Assistant Divisional Controller (Freight Services), Office of Divisional Superintendent of Operation, Manchester, to be Assistant District Operating Manager, Rotherham.

Mr. E. Taylor, District Controller, Wakefield, to be Assistant District Operating Manager, Wakefield.

Mr. J. H. Swinnerton, Assistant to District Operating Manager, Stoke, to be Assistant District Operating Manager, Stoke, in place of Mr. A. D. Cochran, promoted.

Mr. A. H. Williams, Goods Agent, Kendal, succeeding Mr. J. H. Swinnerton, as Assistant to District Operating Manager, Stoke.

Mr. W. Swarbrick, Passenger Assistant to District Goods, Passenger & Docks Manager, Barrow, to be Assistant District Passenger Manager, Birmingham, in place of Mr. E. L. Rowley, retired.

Mr. G. S. Garbert, Outdoor Representative, Trade Advertising Section, Chief Commercial Manager's Office, Watford H.Q., succeeding Mr. W. Swarbrick as Passenger Assistant to District Goods, Passenger & Docks Manager, Barrow.

Mr. F. Shaw, Running Shed Foreman, Motive Power Depot, Crewe South, to be Assistant District Locomotive Superintendent, Longsight, in place of Mr. C. A. Pass, promoted.

Mr. G. W. Naylor, Assistant District Controller, Wakefield, to be Assistant to District Operating Manager, Wakefield.

Mr. C. Hearnshaw, Controller, District Operating Manager's Office, Leeds, to be Assistant to District Operating Manager, Rotherham.

Mr. H. A. Pope, Assistant District Controller, Workington, to be Assistant to District Operating Manager, Preston.

Mr. A. Leadbeater, Assistant District Controller, Rotherham (Masborough), to be Yardmaster, Rotherham (Masborough).

Mr. H. J. Jones, Stationmaster & Yardmaster, Rose Grove, to be Yardmaster, Wakefield.

Mr. J. Smith, Assistant Stationmaster, Manchester (Victoria), succeeding Mr. H. J. Jones as Stationmaster & Yardmaster, Rose Grove.

Mr. R. Christian, Stationmaster, Oldham (Mumps, Central & Werneth), to be Yardmaster & Goods Agent, Grimethorpe, in place of Mr. A. Allatt, retiring.

Mr. J. S. Gavan, Stationmaster & Goods Agent, Bacup, succeeding Mr. R. Christian

as Stationmaster, Oldham (Mumps, Central & Werneth).

Mr. F. W. W. Bebe, Assistant Yardmaster, Miles Platting, to be Stationmaster & Goods Agent, Bacup.

Mr. J. A. Whittaker, Chief Transit & Station Working Clerk, District Goods Manager's Office, Warrington, to be Joint Goods Agent, St. Helens (L.M.S.R. & L.N.E.R.), in place of Mr. A. Halsall, retired.

Mr. H. Waters, Stationmaster & Goods Agent, Maryport, to be Stationmaster & Goods Agent, East Ham, in place of Mr. F. T. Hawkins, promoted.

Mr. K. W. Marston, District Foreman, Carriage & Wagon Department, Preston, to be District Foreman, Carriage & Wagon Department, Kentish Town, in place of Mr. J. Dutton, promoted.

Mr. S. G. Aldridge, District Foreman, Carriage & Wagon Department, Stoke, succeeding Mr. K. W. Marston as District Foreman, Carriage & Wagon Department, Preston.

#### G.W.R. STAFF CHANGES

Mr. K. C. Griffiths, Assistant Divisional Superintendent, Cardiff, to be Staff Assistant to the Superintendent of the Line, Paddington, vice Mr. E. A. Glazyer, Staff & General Assistant, retiring.

Mr. L. F. A. Driscoll, Assistant to Divisional Electrical Assistant, Cardiff, to be Divisional Electrical Assistant, Swansea, vice Mr. D. Fulton, retiring.

Mr. J. J. Membery, Assistant (Electrical) to Divisional Locomotive Superintendent, Worcester, to be Divisional Electrical Assistant, Plymouth, vice Mr. A. J. Youell, retiring.

Dr. C. T. Newnham to be Assistant to the Chief Medical Officer, Paddington.

We regret to record the death, on July 12, of Mr. J. H. Toulmin, a Director, and formerly for many years Chairman, of Leyland Motors Limited.

Mr. M. Seaman and Mr. J. F. B. Jackson have been appointed to the board of P. R. Jackson & Co. Ltd., a subsidiary of David Brown & Sons (Huddersfield) Ltd.

Mr. Graeme S. Gibson has been appointed District Traffic Manager in London of Trans-Canada Air Lines. He was at one time Passenger Manager, Royal Mail Steam Packet Company, at Vancouver. He joined Trans-Canada Air Lines in 1939.

Mr. R. A. Hacking has resigned his position as a Special Director of Dorman, Long & Co. Ltd., and has been appointed by Richard Thomas & Baldwins Limited to deal with, and advise on, all that company's iron and steel production, including construction and development.

Commander E. H. M. Nicholson has retired from the board of Hadfields Limited. He joined Hadfields Limited in 1914, and became a Director in 1916. Mr. W. S. Spicer, Chief Buyer & Stores Superintendent of the company, has been appointed a Local Director.

A congratulatory luncheon for Mr. D. A. Bremner, O.B.E., M.I.Mech.E., M.I.E.E., whose eightieth birthday occurred last month and whose whole working life has been devoted to the engineering industry, was given recently by the Council of the British Engineers' Association. The guests included Sir William Larke, K.B.E., Sir Guy Locock, C.M.G., Mr. V. Watlington and Mr. Loughnan Pendred. Former

members of the B.E.A. Council and Presidents present included Sir William Reavell, and Messrs. J. J. Carter, Harry Alcock and W. D. Lancaster.

Mr. F. Thorn, formerly Assistant Operating Superintendent, Salisbury, Rhodesia Railways, has been appointed District Superintendent, Broken Hill.

The following are among a number of promotions gazetted recently under Regular Army: Royal Engineers:—

Captains (War Substantive Majors) to be Majors; D. C. Merry, W. T. Calvert, W. B. Tyrrell, D. G. Hughes.

Mr. D. D. Scott, A.M.I.Mech.E., Assistant District Locomotive Superintendent, Leeds, L.M.S.R., who, as recorded in our May 17 issue, has been appointed District Locomotive Superintendent, Plaistow, received technical training at the Royal Technical College, Glasgow, where he was awarded senior certificates for mechanical and electrical engineering 1931 and 1935, respectively. Mr. Scott was an engineering apprentice at St. Rollox Workshops, Glasgow, L.M.S.R., from 1925 to 1930. He served in the drawing office there from 1930-1934, and in the Locomotive Department, Polmadie, from 1934 to 1936. He then was appointed Headquarters Office Inspector, Office of Superintendent of Motive Power, Euston; and he was promoted Assistant in that office in 1937. Mr. Scott was appointed Assistant District Locomotive Superintendent, Leeds, in 1939.

### Ballymacarrett Accident, B. & C.D. Railway

In the Ulster High Court on July 22 Mr. Justice MacDermott gave judgment awarding £250 damages to a passenger who was injured in the Belfast & County Down Railway accident near Ballymacarrett Halt on January 10, 1945. His Lordship found both defendants, the railway company and the driver of the rail motor train which collided with the rear of a stationary steam train, guilty of negligence. A stay of six weeks was granted. The action was in the nature of a test case, chosen to decide the issue of negligence. A report of the inquiry into the accident appeared in our July 13, 1945, issue.

Asking: "Was the defendant company guilty of negligence causing the collision?" his Lordship said that, as a carrier of passengers, the company was not an insurer of the safety of those it conveyed. Its obligation was to exercise all due care, skill, and foresight for the safety of its passengers. That had been the law since a case decided by the Courts in 1869.

On the subject of signalling, his Lordship, in a reference to the "stop-and-proceed" rule of the company, which was in force at the time of the accident, said it had been superseded in the interests of safety. His Lordship added that "the company was at the time of the accident the only British railway adhering to it for passenger safety."

He continued: "I have come to the conclusion that this rule cannot be supported by local considerations. To my mind it left the margin of safety unnecessarily narrow, if not in all conditions, at least in some which could reasonably have been foreseen. For that reason, and because other safer methods were practicable and could have been used, I am of the opinion and hold that the company did not discharge its obligation to provide a reason-

ably safe system of signalling, and was therefore, negligent in this respect."

In his opinion the driver did not act with the great care required by the "stop-and-proceed" rule, or, indeed, with ordinary care such as any driver should use apart from special instructions. He had been plainly negligent and his negligence was the direct cause of the accident.

The defendants, his Lordship said, had advanced the theory that the plaintiff, having heard of the accident, saw his chance to make a bogus claim and proceeded to do so without having been concerned in the collision at all, but he (his Lordship) was satisfied that the plaintiff had been aboard the motor train and had received some hurt in the collision.

### Staff & Labour Matters

#### Engineering Industry: Women's Wages

The National Arbitration Tribunal recently issued its award on a dispute between the engineering employers and the trade unions arising out of a claim for an increase in the schedule of wages for female workers provided in an agreement of August 9, 1944, in the engineering industry. The parties to the dispute were:—

(a) Employers: Members of associations federated with the Engineering & Allied Employers' National Federation, Broadway House, Tothill Street, Westminster, S.W.1.

(b) Workpeople: Women members of the Amalgamated Engineering Union, the Electrical Trades Union, the Transport & General Workers' Union, and the National Union of General & Municipal Workers in the employment of the above-mentioned employers.

Subsequent to joint discussion between representatives of the parties about the wages of women paid under the Women's National Schedule in the Engineering Industry, it was agreed between the parties that a mutual reference be made to the National Arbitration Tribunal:—

(a) Having consideration for the special circumstances of the case and without recognising a precedent, an increase be given dating as from the beginning of the pay week following Monday, May 6, amount to be determined by the tribunal.

(b) As part of a long-term policy it is agreed that a joint committee should be set up to investigate the wage structure relating to women in the industry.

The tribunal awarded that the national bonus per 47 hours shall be increased in respect of women workers of 18 years of age and over by 4s. 6d. per week, with proportionate increases for workers under 18 years of age.

The tribunal has thus confirmed the offer made by the employers during the course of the negotiations before the reference to the tribunal.

The increases in the national bonus of women workers will now be as follows:—

Age	Basic rate	National bonus	Time-workers' bonus	Inclusive rate (time-workers) (per 47 hr.)
18 years and over	...	...	...	4s. 6d.
17	...	...	...	3s. 3d.
16	...	...	...	2s. 3d.
15	...	...	...	1s. 9d.
14	...	...	...	1s. 6d.

The total rates of pay for women employed on women's work, after giving effect to the above increases, will be:—

Age	Basic rate	National bonus	Time-workers' bonus	Inclusive rate (time-workers) (per 47 hr.)
21 and over	37s.	20s.	5s. 6d.	62s. 6d.
20	35s.	20s.	5s. 6d.	60s. 6d.
19	33s.	20s.	5s. 6d.	58s. 6d.
18	31s.	20s.	5s. 6d.	56s. 6d.
17	22s. 8d.	14s. 3d.	3s. 6d.	40s. 5d.
16	20s. 4d.	10s.	3s. 6d.	33s. 10d.
15	15s. 8d.	7s. 9d.	3s.	26s. 5d.
14	14s.	6s. 6d.	2s.	22s. 6d.

### Questions in Parliament

#### Cheap Fares on Green Line Coaches

Mr. Alfred Barnes (Minister of Transport) made the following statement in the House of Commons on July 24 concerning cheap fares on Green Line coaches:—

The House will remember that on July 8 I announced the partial restoration of cheap fares on the main-line railways. I am able now to announce that about the end of September the London Passenger Transport Board will introduce the following facilities on its Green Line coach services on the basis of return journey for single fare plus one half:—

(1) Cheap day return fares to Central London on Tuesdays, Wednesdays, and Thursdays, subject to a minimum fare of 2s. These tickets will be available on coaches arriving in London after 10.30 a.m., and for return on coaches leaving London before 4.30 p.m. or after 6.30 p.m.

(2) Cheap day return tickets from Central London on Tuesdays, Wednesdays, and Thursdays available on any coach on the day of issue; minimum fare, 2s.

(3) Weekly season tickets available for six return journeys, one on each week day, at the cost of six cheap day return fares, subject to a minimum charge of 12s., without restriction as to time of travel.

The scope of cheap fare facilities on the coaches is necessarily limited for the present, as the margins of coach accommodation are small and the Board has no spare vehicles with which to increase the services.

I should not be justified in introducing cheap fares generally on the Board's railways having consideration to the relatively low level of their ordinary fares; but, to provide for juveniles a facility parallel with that provided by the main-line railways, the Board will from August 1 issue cheap day return tickets to juvenile parties by prior arrangement. The return fare will be single fare plus one half, subject to a minimum single fare of 9d. for accompanying adults and 4½d. for juveniles. The other conditions applying to these tickets will be similar to those applying to juvenile party tickets on the main-line railways.

Major C. S. Taylor (Eastbourne—C.) asked if the Minister would not consider introducing cheap fares to the holiday resorts during the holiday season.

Mr. Barnes replied that that had already been provided for by the announcement he read in connection with the main-line railways.

Mr. A. Marlowe (Brighton—C.) inquired what would be the cost of a return ticket to Bexley.

Mr. Barnes said that if Mr. Marlowe would make inquiries he would very soon ascertain.

Mr. H. D. Hughes (Wolverhampton West—Lab.) inquired if, as the Green Line coaches were used by a large number of persons for rambling at the week-end, which was the only time when they were free, the Minister would consider extending those cheap fares to week-ends at the earliest possible opportunity.

Mr. Barnes: Yes, certainly, at the earliest possible opportunity.

#### Hatfield Train Accident

Mr. Hector Hughes (Aberdeen North—Lab.) on July 22 asked the Minister of Transport if he was now in a position to state the nature of the personal injuries sustained in the accident on July 15 to the Kings Cross to Aberdeen train near Hatfield, and the amount of material damage and loss; and what steps were being taken to compensate the sufferers.

Mr. Alfred Barnes, in a written answer,

stated: Of the 400 passengers in the Kings Cross-Aberdeen train, 11 were taken to hospital; one was seriously injured, necessitating leg amputation, and the other 10 sustained less serious injuries. The forearm of one was fractured, one had a scalp wound, two sustained crushed hands, and the remainder suffered from shock and lacerations of arm, hand, leg, or foot. I am informed that one has already been discharged from hospital and that five will probably be discharged this afternoon or tomorrow. The rest are progressing favourably. The engine was slightly damaged, and, of the 14 coaches involved, one was wrecked, three were heavily damaged, and 10 slightly. Half-a-mile of track has had to be relaid. As to compensation, I cannot at present say more than that the usual procedure in such matters will be followed.

#### Sleeping-Car Accommodation

Mr. Frederick Willey (Sunderland—Lab.) on July 19 asked the Minister of Transport when it was intended to provide sleeping car accommodation on trains between Sunderland and Kings Cross.

Mr. Alfred Barnes stated in a written answer: Sleeping car services on this route will be restored as soon as circumstances permit. Under present conditions sleeping cars could only be provided at the expense of seating accommodation, all of which is needed.

#### Safety Standards on Railways

Mr. Hector Hughes (Aberdeen North—Lab.) on July 22 asked the Minister of Transport, in view of recent railway accidents, what was being done to examine the conditions of the permanent way and rolling stock, and to put and keep both in a condition which would obviate accidents.

Mr. Alfred Barnes stated in a written answer: The permanent way and rolling stock is under continual examination, and inquiries into recent accidents do not indicate any diminution in the high previous standards of safety, or that there is any general cause of such accidents as occur.

#### Railway Fares

Mr. F. W. Skinnard (Harrow East—Lab.) on July 22 asked the Minister of Transport if he was aware that recent increases in suburban fares and season tickets by the main-line railway companies had led, in certain areas, to anomalies, and that the previous benefit of competition between wholly L.P.T.B. routes and partly main-line routes, under which the same fares were charged for comparable journeys, had been ignored, creating the possibility of a serious diversion of passengers to the cheaper routes; and whether he would consider the restoration of the competing fares pending the conclusion of the present inquiry on L.P.T.B. rates.

Mr. Alfred Barnes in a written answer stated: I was aware that the exclusion of the London Passenger Transport Board's railway fares from the increases which came into force on July 1 would disturb relationships with fares on the suburban services of the main-line railways, but, as I explained to the House on May 29, an immediate increase in the main-line companies' charges was necessary. The inquiry by the Charges Consultative Committee into the adjustments to be made in the Board's fares has recently concluded, and I propose to consider the matter further when I have the Committee's report.

Mr. Percy Wells (Faversham—Lab.) on July 22 asked the Minister of Transport why the charge for a quarterly season ticket between London and Faversham, distance 52 miles, cost 26s. 1d. more than

a ticket between Whitstable and London, distance 59 miles; and whether he would make a reduction in the case of Faversham.

Mr. Alfred Barnes, in a written answer, stated: The season ticket between London and Faversham to which Mr. Wells refers is available for journeys between intermediate points and is in accordance with standard conditions; that between Whitstable and London is restricted to direct journeys. A season ticket with intermediate availability between Whitstable and London costs more than the corresponding ticket between Faversham and London.

#### Rubber Springs for Railway Wagons

Major Guy Lloyd (East Renfrew—C.) on June 24 asked the Minister of Supply why the Clyde Rubber Works Co. Ltd. was not invited to tender for rubber springs for railway wagons; and why only English firms were allowed to tender for those springs.

Mr. John Wilmot (Minister of Supply) stated in a written reply: After considering all available sources of supply, it was decided, on the advice of the Wagon Production Committee, on which the main-line railway companies and the wagon-building industry were represented, that this particular requirement of rubber springs could best be met by allocation to three firms.

#### Manchester Train Delay

Captain A. E. Marples (Wallasey—C.) on July 22 asked the Minister of Transport why, on June 29, the train which left Liverpool Central at 10.10 p.m. and which should have arrived at Manchester Central at 11.35 p.m., was 26 minutes late.

Mr. Alfred Barnes stated in a written answer: There was five minutes delay at Liverpool awaiting passengers from the steamer from North Wales for whom this train is a recognised connection. Further, because of exceptionally heavy traffic on this day there was delay at each station because the train was too long for the platforms and had to draw up twice. I regret any inconvenience which was caused to Captain Marples and other passengers by these delays.

#### Travelling Facilities from Lewisham

Mr. A. M. Skeffington (Lewisham West—Lab.) on July 22 asked the Minister of Transport whether he was prepared to investigate the poor travelling facilities now existing between south-east London, especially the borough of Lewisham, and the City and West End; and whether, to help those heavily-bombed dormitory areas, he would investigate the provision of underground railway connections.

Mr. Alfred Barnes stated in a written answer: Services from this area to the City will be substantially improved after August 12, when the repair of war damage to Blackfriars signal box will be completed. The question of underground railway connections has recently been investigated by the Railway (London Plan) Committee, whose report has been published and is under consideration.

#### Bookings from Essex Coast Towns to London

Captain R. J. Gunter (Essex South-East—Lab.) on July 19 asked the Minister of Transport if he would state the number of persons booking tickets for journeys in the direction of London, including Fenchurch Street, from the following L.M.S.R. stations: Shoeburyness, Thorpe Bay, Southend-on-Sea, Westcliff, Chalkwell, Benfleet, Pitsea, and Laindon, on June 26,

1946, and the number of season-ticket holders travelling in the same direction from each of the above-mentioned stations on the same date.

Mr. Alfred Barnes in a written answer stated: The numbers of tickets issued and season tickets valid on June 26, 1946, for journeys in the direction of London from each of the L.M.S.R. stations named were:—

From	Tickets issued	Season tickets valid
Shoeburyness ...	331	91
Thorpe Bay ...	397	475
Southend-on-Sea ...	2,037	1,462
Westcliff ...	847	1,266
Chalkwell ...	471	1,835
Benfleet ...	1,452	1,296
Pitsea ...	1,337	444
Laindon ...	1,765	1,280

No records are available of the number of season-ticket holders who actually travelled on June 26.

#### Housing Subsidy and Railway Freight Charges

Mr. A. C. Bossom (Maidstone—C.) on June 27 asked the Minister of Health whether he would increase the subsidy on local authority houses now that railway freight charges were to be increased, in view of the fact that transport charges formed a large element in the cost of a house.

Mr. Aneurin Bevan (Minister of Health), in a written answer, stated: No. The arrangements for review of subsidy are fixed by the Housing (Financial Provisions) Act, 1946, which provides for a review after the end of the year in consultation with representatives of local authorities, when all the factors which make up the cost of a house (including the cost of money) will be taken into consideration.

#### Grass on Railway Embankments

Major John Morrison (Salisbury—C.) on July 1 asked the Minister of Agriculture what steps were being taken to make use of the maximum amount of hay growing on road verges, railway embankments, and unused land requisitioned by Service departments in order to augment feeding supplies for the winter during the shortage of animal feeding stuffs.

Mr. H. E. Randall (Clitheroe—Lab.) also asked the Minister of Agriculture what steps had been taken to encourage local authorities and railway companies to preserve grass from verges of country roads and railway embankments; and what arrangements had been made for its collection and distribution.

Mr. Tom Williams (Minister of Agriculture): I entirely agree that it is essential that as much grass as possible should be preserved this season, in order to increase our limited supplies of feeding stuffs next winter. My department is taking all practicable steps, by propaganda and through the agency of C.W.A.E.Cs., towards that end, where these would not conflict with the farmer's need for preserving his own grass to the maximum extent. An increased supply of either silage or dried grass, much as I wish to encourage it at this juncture, involves, however, the use of machinery and labour, both of which are in short supply. In general, therefore, special arrangements for the collection and preservation of grass from road verges or railway embankments must be confined to the surplus capacity of our limited machinery and labour resources on farms, where they could normally be more efficiently employed. As regards unused land requisitioned by Service departments, arrangements already exist to ensure that wherever practicable any such land not suitable or available for arable cultivation

is either grassed, or sown for hay, drying, or silage.

In reply to a further question by Major Morrison, Mr. Williams said he could assure him that the war agricultural committees were making the best use of the labour available, both on railway embankments and elsewhere where grass grew.

#### Iron and Steel Industry

Mr. David Eccles (Chippenham—C.) on June 24 asked the Minister of Supply whether the control board for iron and steel would exercise control over labour employed within the iron and steel industry; and whether such control would be limited to those parts of the industry which were to be nationalised.

Mr. John Wilmot wrote in reply: No.

#### Corridor Coaches

Mr. J. H. McKie (Galloway—C.) on July 19 asked the Minister of Transport if corridor carriages could now be provided on the 8.40 a.m. train from Dumfries to Stranraer and the 3.30 p.m. train from Stranraer to Dumfries, respectively.

Mr. Alfred Barnes stated in a written answer: Corridor coaches cannot, at present, be spared from long-distance main-line trains for use on these local stopping trains which are provided with non-corridor lavatory coaches.

#### Transport in Oxfordshire

Squadron-Leader Sir Gifford Fox (Henley—C.) on July 1 asked the Minister of Transport whether a train could be put on from Oxford to Islip later than seven o'clock, preferably 10.30; and if he would improve the bus service for Islip and Charlton, Oxfordshire.

Mr. Alfred Barnes stated in a written answer: I am informed that a late train from Oxford to Islip could not be justified, and that it is impracticable at present to improve the bus service for Islip and Charlton, but I am making inquiries.

#### G.W.R. Workers and Soap Ration

Mr. J. A. Sparks (Acton—Lab.) on July 10 asked the Minister of Food if he was aware of the unrest amongst coalmen, fire droppers, and tube cleaners at the G.W.R. Old Oak Common Locomotive Depot because of their inability to keep clean upon their personal ration of soap,

and in view of the state of discontent amongst this type of worker, if he would prohibit the export of soap.

Wing-Commander John Strachey (Minister of Food), in a written answer, stated: These workers are provided with the usual washing facilities at their depot. I am inquiring further of the railway company as to the cause of the trouble and will write to Mr. Sparks. Only very small quantities of soap—under 4 per cent. of our total production—are exported, and as the British colonies, dependencies, and Middle East territories which receive these exports have to rely on this country for their supplies, I am afraid I cannot adopt Mr. Sparks's suggestion.

#### London-South Wales Railway Services

Mr. Peter Freeman (Newport—Lab.) on July 22 asked the Minister of Transport whether he would arrange to have an extra coach put on the London trains and reserve a proportion of dining car tickets at Newport, so that those from that station did not have to stand and go hungry.

Mr. Alfred Barnes stated in a written answer: Trains from South Wales to London are already up to the maximum engine load and it is not possible to add an extra coach. Relief services are being arranged and should assist passengers from Newport to obtain seats. The demand for meals from passengers joining London trains west of Newport already exceeds the facilities which can be provided and I regret that accommodation cannot be reserved for passengers from Newport.

#### Bexleyheath Line

Mr. A. M. Skeffington (Lewisham West—Lab.) on June 24 asked the Minister of Transport whether he would consult with the Southern Railway to afford some relief to passengers who used the 5.45 train, Charing Cross to Dartford, where conditions of overcrowding prevailed.

Mr. Alfred Barnes, in a written answer, stated: This train, which runs via the Bexleyheath line, already includes two new 4-car units with high seating capacity. There is no path for an additional train from Charing Cross at about this time. When repairs to the war damage at Blackfriars signal box are completed, which it

is hoped will be in August, the Southern Railway intends to run trains from there on the Bexleyheath line at 5.24 p.m. and 5.48 p.m., which should relieve the situation.

#### South-East London Train Services

Mr. A. M. Skeffington (Lewisham West—Lab.) on June 24 asked the Minister of Transport whether, in view of the inadequate train services to south-east London, and in particular to Brockley, Honor Oak, Forest Hill, and Sydenham, he would consider the possibility of running a through service to Charing Cross.

Mr. Alfred Barnes stated in a written answer: Charing Cross Station is already worked to capacity during the peak hours, and services from the area in question could only be diverted into it at the expense of trains from elsewhere.

#### Standing Passengers on District Railway

Dr. Somerville Hastings (Barking—Lab.) on June 24 asked the Minister of Transport whether, in view of the large numbers of persons compelled to stand while travelling on the District Railway between London and Barking, he would arrange for the provision of straps at the ends as well as the centres of the carriages.

Mr. Alfred Barnes stated in a written answer: Straps are so provided in the more modern carriages on this service, and the L.P.T.B. is considering whether it would be practicable to provide them in those sections of the older carriages which at present are fitted with grab handles fixed to the cross seats.

#### Euston—Stranraer Boat Trains

Mr. J. H. McKie (Galloway—C.) on July 19 asked the Minister of Transport if he would consider altering the hour of departure of the 4.50 p.m. Stranraer boat express to the pre-war hour of 7.30 p.m., as the earlier timing was now causing inconvenience to many passengers.

Mr. Alfred Barnes, in a written answer, stated: As from October 7 next, boat trains will leave Euston for Stranraer at 6.15 p.m. and 6.30 p.m. on weekdays, except Saturdays, and at 5.55 p.m. and 6.5 p.m. on Sundays. I regret that for operating reasons it is not possible to restore the pre-war timings where there was only one boat train.

### Minister of Transport Visits Brighton Works, Southern Railway



Sir Eustace Missenden, General Manager, S.R., Colonel Eric Gore Browne, Chairman, S.R., Mr. Alfred Barnes, Minister of Transport, and Mr. C. M. Cock, Chief Electrical Engineer, S.R., at Charing Cross Station on July 18, before leaving for Brighton Works



Mr. Alfred Barnes talking to one of the employees during his visit to Brighton Works. Mr. O. V. Bulleid, Chief Mechanical Engineer, and Mr. O. G. Hackett, Works Manager, Brighton, are behind the Minister. On the right is Mr. Alfred Robens, M.P., Parliamentary Private Secretary to the Parliamentary Secretary

## Notes and News

**Senior and Junior Draughtsmen Required.**—An important firm of locomotive manufacturers has vacancies for senior and junior draughtsmen with experience in steam and/or diesel locomotive design. See Official Notices on page 139.

**Great Western Railway.**—The directors of the Great Western Railway Company have declared an interim dividend of 2 per cent., for the half-year ended June 30, on the consolidated ordinary stock. Dividend warrants will be posted on or about August 20.

**Rates and Fares Reductions in Eire.**—The estimated annual cost of the rates and fares reductions which were introduced by Coras Iompair Eireann on July 1 is £½ million, and not £3½ million as was shown by a typographical error in the overseas pages of our July 19 issue.

**Level Crossing Accident near Kirriemuir, L.M.S.R.**—An accident occurred on July 25 at a level crossing at Balmuckety, near Kirriemuir, L.M.S.R., when a bus ran on to the line in front of the 5.8 p.m. train from Kirriemuir to Forfar. Seven passengers in the bus were killed and 27 injured in the collision. There were no casualties in the train.

**Colonial Government Appointment.**—A clerk, Class II, is required by the Kenya & Uganda Railways & Harbours Administration for one tour of 36 to 48 months, with early prospect of permanency and further promotion. Candidates, preferably not over 30, should have a knowledge of head or district office railway revenue accounting methods. See Official Notices, page 139.

**Vickers Limited Interim Dividends.**—At a meeting of the board of Vickers Limited held on July 18, the following interim dividends were declared: 2½ per cent. actual, less income tax, on the preferred 5 per cent. stock; 2½ per cent. actual, less income tax, on the 5 per cent. preference stock; and 2½ per cent. actual, free of income tax up to 6s. in the £, on the cumulative preference stock. Payment will be made on August 16.

**Maidstone & District Motor Services Limited.**—Traffic receipts and other income for the year ended March 31, 1946, were £1,470,477 as compared with £1,269,662 in the preceding year. Profit and loss account shows a credit balance of £87,340, to which £59,618 is added from 1944-45. After transferring £20,000 to general reserve, the balance available for distribution is £126,958. Preference dividend, and an ordinary interim dividend of 5 per cent. paid on October 1, 1945, take £25,250, leaving £101,708. The directors recommend a final dividend on the ordinary shares of 5 per cent., plus a bonus of 5 per cent., leaving £60,458 to be carried forward.

**News from "Lords" at London Transport Stations.**—The London Passenger Transport Board has arranged for current information concerning conditions at Lords Cricket Ground to be displayed prominently at 7 of the more important Underground stations. Every day for the remainder of the cricket season, the M.C.C. authorities will send to the Underground Railway Traffic Controller such information as "Ground full and closed," "Rain stopped play," "Play resumed," and so on, and he will arrange for this to be displayed, under the head-

ing "Cricket at Lords," on blackboards in the ticket halls of the stations concerned. These arrangements came into force on July 22.

**Senior Draughtsman Required.**—A senior draughtsman is required with experience of locomotive accessories. See Official Notices on page 139.

**London Midland & Scottish Railway Company.**—The directors of the London Midland & Scottish Railway Company have decided to make interim dividend payments for the past half-year on the 4 per cent. guaranteed stock, the 4 per cent. preference stock, and the 4 per cent. preference (1923) stock at £2 per cent. actual, less tax. Warrants will be posted on August 20.

**London Passenger Transport Board.**—The London Passenger Transport Board announces that a payment on account of interest on the London Transport "C" stock for the financial year ending on December 31, 1946, will be made by the Board's registrars, the Bank of England, on August 23, 1946, to all holders of the stock whose names are registered in the books of the Bank of England at the close of business on July 30, 1946, such payment to be at the rate of 1½ per cent. actual, the same rate as in the previous year, less tax at 9s. in the £.

**Great Northern Railway Company (Ireland).**—The directors have decided, subject to audit, to pay on September 2 next an interim dividend of £2 per cent., less tax, in respect of the year 1946 to the holders of the consolidated 4 per cent. guaranteed stock registered at the closing of the transfer books on August 7. Consideration of the payment of dividends on the preference and ordinary stocks was deferred until the end of the year.

**Southern Railway Company.**—The directors of the Southern Railway Company announce that the estimated net revenue accruing to the company for the first half of the year is sufficient to pay (less tax) interim dividends of 2½ per cent. on the guaranteed preference and preference stocks and 2½ per cent. on the preferred ordinary stock, and such interim dividends will be paid accordingly. An interim dividend of 2½ per cent. was paid on the preferred ordinary stock last year. Warrants will be posted on August 15.

**London & North Eastern Railway Company.**—The directors of the London & North Eastern Railway Company have declared the undermentioned interim dividends for the past half-year: 2 per cent. actual on the 4 per cent. first guaranteed stock; 2 per cent. actual on the 4 per cent. second guaranteed stock; 2 per cent. actual on the 4 per cent. first preference stock; 2½ per cent. actual on the 5 per cent. redeemable preference stock, 1955; 1 per cent. actual on the 4 per cent. preference stock; in each case less tax. Warrants will be posted on or about August 16.

**Southern Railway Bank Holiday Services.**—All Southern Railway main line services from Waterloo, Victoria, Charing Cross, and Cannon Street stations are being strengthened for the August bank holiday period. Altogether 220 extra trains will be run between yesterday (Thursday) and Monday to Margate and Ramsgate; Hastings and Bexhill; Folkestone and Dover; Brighton and Worthing; Eastbourne; Bognor Regis and Littlehampton; Portsmouth and the Isle of

Wight; Bournemouth and Weymouth; and the West of England. Many normal electric train services, both on the main line and in the suburban area, will be strengthened with additional coaches on each day of the holiday.

**G.W.R. Helps Rebuilding Plans.**—Wagons specially constructed to carry 24,000 triangular tubular steel roof trusses for 6,000 prefabricated permanent steel houses, are to be run by the G.W.R. in a shuttle service between Newport (Mon.)

## British and Irish Railway Stocks and Shares

Stocks	Highest 1945	Lowest 1945	Prices	
			July 30, 1946	Rise Fall
G.W.R.				
Cons. Ord. ....	60½	47½	54½xd	- 2
5% Con. Pref. ....	124½	104½	115xd	- 1
5% Red. Pref. (1950) ..	107½	101½	103½xd	- 1
5% Rt. Charge .....	137½	120	128½	- 1
5% Cons. Guar. ....	135½	117	123½xd	- 1
4% Deb. ....	118	106	116	-
4½% Deb. ....	119½	108	116½	-
4½% Deb. ....	124½	111½	122	-
5% Deb. ....	138	124	132½	-
2½% Deb. ....	83	74½	86½	-
L.M.S.R.				
Ord. ....	33	23½	26½	- ½
4% Pref. (1923) ....	65	50	53xd	- 1½
4% Pref. ....	80½	69½	73½xd	- 2½
5% Red. Pref. (1955) ..	106½	99½	102½	- 1
4% Guar. ....	106½	97	100½xd	- 1
4% Deb. ....	110½	102	107½	-
5% Red. Deb. (1952) ..	110½	103½	106½	-
L.N.E.R.				
5% Pref. Ord. ....	8½	5½	5½	-
Def. Ord. ....	4½	2½	2½	-
4% First Pref. ....	62½	49½	50½xd	- 2
4% Second Pref. ....	33½	24½	26½xd	- ½
5% Red. Pref. (1955) ..	103	96	99xd	- 1
4% First Guar. ....	104½	95	99½xd	- 1
4% Second Guar. ....	97	89½	93½xd	- 1
3% Deb. ....	91½	82½	92	-
4% Deb. ....	109½	101	107½	-
5% Red. Deb. (1947) ..	103½	100	100	-
4½% Sinking Fund Red. Deb. ....	106½	103	104½	-
SOUTHERN				
Pref. Ord. ....	79½	63	69½xd	- 1½
Def. Ord. ....	27	20½	20	- ½
5% Pref. ....	124½	104	113xd	- 2
5% Red. Pref. (1964) ..	117	107	109½xd	- 1
5% Guar. Pref. ....	135½	117	123½xd	- 1
5% Red. Guar. Pref. (1957) ....	117	106½	111½xd	- 1
4% Deb. ....	117	104½	114½	- ½
5% Deb. ....	137	124	131½	-
4% Red. Deb. (1962- 67) ....	112	104½	109½	-
4% Red. Deb. (1970- 80) ....	113½	104	109½	-
FORTH BRIDGE				
4% Deb. ....	106	103	106	-
4% Guar. ....	106	101	103	-
L.P.T.B.				
4½ "A" ....	125	117	124½	-
5% "A" ....	135	127	134½	+ 1
3% Guar. (1967-72) ..	100	97½	104	- ½
5% "B" ....	125½	115	120½	-
"C" ....	70	58	56½xd	- 1½
MERSEY				
Ord. ....	37	31½	30	- ½
3% Perp. Pref. ....	72½	68½	72	-
4% Perp. Deb. ....	104½	104	105	-
7% Perp. Deb. ....	84	78½	82½	-
IRELAND* BELFAST & C.D.				
Ord. ....	8½	6	7½	-
G. NORTHERN				
Ord. ....	34	24½	41½	+ ½
Pref. ....	52½	42½	62	+ ½
Guar. ....	80	68	91½	-
Deb. ....	97½	87½	102	-
IRISH TRANSPORT				
Common ....	—	—	187½	- 1½
3% Deb. ....	—	—	102½	-

\* Latest available quotation

## OFFICIAL NOTICES

## Crown Agents for the Colonies

COLONIAL GOVERNMENT  
APPOINTMENTS

**REQUIRED** by important Firm of Locomotive Manufacturers—Senior and Junior Draughtsmen with experience in Steam and/or Diesel Locomotive design. Details of experience and salary required to Box 17, *The Railway Gazette*, 33, Tothill Street, Westminster, London, S.W.1.

**DRAUGHTSMAN**, Senior, required. Good post available for draughtsman with experience in design of locomotive accessories. Should have had practical training and be conversant with latest locomotive engineering practice.—Apply Box 18, *The Railway Gazette*, 33, Tothill Street, Westminster, S.W.1.

**STATION DESIGN**. A striking example of modern British practice at the important wayside station of Luton. Reprinted from *The Railway Gazette*, July 7, 1944. Price 1s. Post free 1s. 2d.

**THE "PAGET" LOCOMOTIVE**. Hitherto unpublished details of Sir Cecil Paget's heroic experiment. Eight single-acting cylinders with rotary valves. An application of the principles of the Willans central-valve engine to the steam locomotive. By James Clayton, M.B.E., M.I.Mech.E. Reprinted from *The Railway Gazette*, November 2, 1945. Price 2s. Post free 2s. 3d.

and sites in all parts of the country. Each wagon will carry 40 trusses, 25 ft. long at the base and rising to 5 ft. 3 in. at the apex—sufficient for 10 hours.

**Presentation to Mr. W. A. Green.**—Mr. W. A. Green, who is retiring from active business after representing Hadfields, Limited, of Sheffield, in Birmingham and the South Midlands for 45 years, at a luncheon given recently in his honour by the board at the East Hecla Works, Sheffield, was the recipient of a presentation from Mr. J. B. Thomas.

**L.M.S.R. (Extension of Time) Order.**—The Minister of Transport has made the London Midland & Scottish Railway (Extension of Time) Order, 1946 (S.R. & O. No. 875). Copies of the Order may be obtained from the Clerk of Stationery, Ministry of Transport, Berkeley Square House, Berkeley Square, London, W.1, price 1d. (post free, 2d.) each.

**L.N.E.R. Post-War Locomotive Livery.**—The directors of the L.N.E.R. have decided that all the company's locomotives, numbering 6,400, are to be painted in bright colours. The streamline Pacifics will be painted "Garter" blue; all the remaining engines will be painted in the pre-war standard L.N.E.R. green. This step represents an advance on pre-war practice, since even goods and shunting locomotives will appear in future in the green livery which was previously reserved for passenger locomotives.

**Silverton Tramway Co. Ltd.**—Net profit of the Silverton Tramway (New South Wales) for the year ended June 30, 1945, was £36,146, compared with £42,191 for the previous year. After payment of dividends, and allocations to reserves and to a new staff provident fund, £8,972 was carried forward. Revenue from tramway operations was £153,003, as against £170,918 in 1943-44. There was a decrease in tonnage hauled, and working costs declined from £81,307 to £76,920 in consequence.

**Southern Railway Day Excursion Facilities.**—The Southern Railway announces that on and from August 6, a limited number of day excursions will be run to seaside resorts from London and certain suburban stations on Tuesdays, Wednesdays and Thursdays. Fares will be based on single fares for return journey. On Tuesdays, trains will leave London Bridge

for Brighton and Worthing; New Cross for Margate; and Wimbledon for Littlehampton.

On Wednesdays trains will leave Waterloo for Portsmouth & Southsea; Victoria for Eastbourne, Hastings, and Littlehampton; and Charing Cross for Margate. On Thursdays there will be excursions from Victoria to Brighton and Margate, and from London Bridge to Bognor Regis.

**Ruston & Hornsby Limited.**—At the annual general meeting of Ruston & Hornsby Limited on July 12, the Chairman, Mr. G. R. Sharpley, announced a programme for considerable extension of the company's Lincoln factories. This factor, combined with the effect of inflation on working capital, had led the directors to decide to increase the company's share capital. Treasury consent had been obtained already, and the directors proposed to issue a further 410,000 ordinary shares, which would be offered in the first instance to existing stockholders.

**The Manila Railroad.**—With the Japanese invasion of the Island of Luzon, in the Philippines, in December, 1941, the Manila Railroad Company lost control of its undertaking and has only recently regained it. Operations during 1942, 1943, and 1944, were under the control of the Japanese Army, and the property was subjected to serious damage as a result of war operations. From January, 1945, to January 31, 1946, operations were under the control of the United States Army, and it was only on February 1 that the Manila Railroad Company was able to resume the control and operation of its properties. At present about 475 miles of line (out of the total of 708 miles) are working. The pre-war number of locomotives has been reduced from 159 to 65, and of rolling stock from 2,606 to 1,641. The whole undertaking is on the 3 ft. 6 in. gauge.

**Transport Services Interrupted by Storms.**—Severe storms of rain and hail, followed by flooding, interrupted transport services in several parts of the country on the evening of July 26. In London, tube stations were flooded by water pouring down the escalator shafts, and Paddington Underground Station had to be closed temporarily. Services on the open-air sections of certain London Transport lines had to be suspended for several hours. Metropolitan Line trains from London could not proceed north of Willesden Green, and there was no service on

the District Line between Turnham Green and Richmond, or on the Central Line between Wood Lane and Ealing Broadway. Main-line stations also were affected, the L.N.E.R. Aberdonian express leaving Kings Cross 75 min. late. Elsewhere in the country, two landslides blocked the L.N.E.R. line near Redham, Norfolk, and L.M.S.R. trains were delayed by flood damage to an embankment near Crewe.

**Cost-of-Living Index.**—At July 1 the official cost-of-living index figure was 105 points above the level of July, 1914, compared with 103 points a month earlier. At July 1, 1939, it was 56 points above July, 1914.

**Specialaloid Overseas Distributing Organisation.**—Specialaloid Limited has been appointed sole export distributor for all world markets, except for Eire and the Union of South Africa, for "Hago" cylinder liners, valves, valve guides and valve seats manufactured by Harold Andrews Grinding Co. Ltd., of Birmingham. It is intended to market those parts through the existing Specialaloid Overseas Distributing Organisation. Specialaloid also distributes the products of the Glacier Metal Co. Ltd. in the export market.

**Hatfield, L.N.E.R. Accident Report.**—The report by Sir Alan Mount on the accident at Potters Bar, L.N.E.R., on February 9, in which three trains were involved, has now been published. As recorded in our February 15 issue, a suburban train to Kings Cross was derailed at the station and was run into by the 9.45 p.m. from Kings Cross to Newcastle. The 5 p.m. from Bradford also collided with the wreckage. Sir Alan Mount recommends early reconstruction of the station, where at present the traffic is concentrated on two tracks.

**Buffer Stop Collision at Edgware, London Transport.**—A London Transport tube train ran into the buffer stops at Edgware Station on July 27, injuring a number of passengers. At the inquest on the motorman which was opened at Hendon on July 30, it was stated that he had died from heart disease while at the controls of the train. A London Transport official explained after the inquest that the train must have been so close to the buffers when the motorman collapsed that the automatic braking did not have time to operate on release of the dead man's handle.

**Reprints.**—The following interesting articles have been reprinted in pamphlet form, and are on sale at this office:—A National Transport Programme—1s. The Railway Executive Committee and its Headquarters in Wartime—5s. The Work of the Railway Clearing House, 1842-1942—2s. 6d. L.M.S.R. Locomotive Casualty Report System—1s. Coming of Age of Railway Grouping: G.W.R.; L.M.S.R.; L.N.E.R.; S.R.—2s. 6d. The "Paget" Locomotive—2s. British-Built Austria 2-10-0 Locomotive—2s. The Coronation Scot—With Folding Plate—3s. Diesel Locomotives for Industrial Shunting—2s. L.M.S.R. General Utility Locomotives—1s. Station Design—1s. Sectioned Perspective View of Locomotive Front End with Folding Plate—2s. 6d. Plastics in Railway Engineering—1s. The Locomotive Carriage & Wagon Workshops of the Nigerian Railway—1s. 6d. The Tyneside Electrified Lines of the L.N.E.R.—1s. New Southern Railway Passenger Luggage Van—1s. New Montreal Central Station, Canadian National Railways—5s. White-moor Marshalling Yard, L.N.E.R.—1s. The Railway System of Jamaica—1s. The Railways of Persia—2s. British Work on Persian Railways—1s.

If sent by post 2d. extra

## Railway Stock Market

Uncertainty prevailed in stock markets, where a disposition to await indications as to the progress of the Peace Conference has been an additional factor making for a cautious attitude. Business further declined, and in the industrial section, although selling was light, it tended to have a disproportionate influence on prices. British Funds remained firm; the big increase in banking deposits has had the effect of emphasising the large sums awaiting investment.

Speculative interest in new issues has again been pronounced, but, on the other hand, leading industrials were affected by uncertainty as to dividend policy. The assumption is that the Chancellor of the Exchequer does not favour dividend payments above pre-war levels, and that the greater part of E.P.T. refunds will probably be placed to reserves; while there are fears in the market that Mr. Dalton has not abandoned entirely the idea of a new tax to take the place of E.P.T. when the latter is abolished at the end of the year.

Iron, coal and steel shares showed small movements, but were not without good features. Thomas & Baldwins 6s. 8d. ordinary rose 9d. to 10s. 9d. on the increased profits for the past year. Powell Duffryn strengthened to 23s. 7½d. on further consideration of the statements at the recent meeting, while Ruston & Hornsby at 58s. 6d. rallied after an earlier decline.

Main attention in the railway market has again centred on Argentine rails, although the volume of business was well below that of recent weeks. It is realised that a successful outcome to the British Mission's talks is to the advantage of both countries and that a satisfactory solu-

tion of major problems reasonably can be expected. Consequently, Argentine rails have been much steadier than of late and on balance for the week were generally well maintained.

Home rails remained friendless, the interim dividend decisions producing no surprises as they conformed to general expectations by being the same as a year ago in every case. Sentiment remained under the influence of the latest traffic figures, which were considered disappointing, although it should not be overlooked that they covered only two weeks of the increased fares and charges. Owing to the latter and the big holiday traffics, the next return can be expected to make a more hopeful showing. In accordance with previous practice, the L.M.S.R. is not making an interim payment on the ordinary stock; but the prevailing belief is that there is a reasonable possibility of 4 per cent. again being paid for the whole year, although it is realised that this would doubtless necessitate a further withdrawal from reserves. In fact, it is generally assumed that dividend payments of the main-line railways will be maintained. Nevertheless, although the large yields have tended to be emphasised this week now that quotations are "ex" the interim payments, buyers have not been attracted, sentiment still being under the influence of uncertainty and conflicting opinions as to what should constitute a fair compensation basis for stockholders in the event of nationalisation.

Great Western, 56½ a week ago, has receded to 54½ xd., with the 5 per cent. preference 115xd. and the 4 per cent. debentures unchanged at 116½. L.M.S.R. was 26½, compared with 26½ a week ago, the

1923 preference 53xd., compared with 54½, and the senior preference 73½xd., compared with 76; the 4 per cent. debentures were maintained at 107½. Southern deferred eased ¼ to 20½, the preferred ordinary was 69½xd., as against 71 a week ago, and the 5 per cent. preference 113xd.

L.N.E.R. second preference receded to 26xd. comparing with 27 a week ago, and the first preference was 50xd. compared with 52; the first and second guaranteed stocks were 98½xd. and 93½xd. respectively. London Transport "C" was 56xd., against 57½ a week ago.

Argentine rails showed only small movements on balance, Buenos Ayres Great Southern being 13½, compared with 13½, the 5 per cent. preference 30, compared with 28½, and the 4 per cent. debentures were slightly higher at 73. Central Argentine was 9½, compared with 10, but the 6 per cent. preference moved fractionally higher at 33, and the 4 per cent. debentures improved from 67 to 69½ while the 5 per cent. debentures were better at 72½. Buenos Ayres Western, at 16½, compared with 16½ a week ago, and the 4½ per cent. preference eased from 42 to 41½, although the 4 per cent. debentures at 70½ were maintained on balance. Buenos Ayres & Pacific ordinary was 7½, the 5 per cent. preference 30, and 4 per cent. debentures 73.

Nitrate Rail shares have been active, but receded to 83s. 9d. on the terms of the proposed sale, although the prevailing view is that the present level of the shares appears to be fully justified. French railway sterling bonds were higher in price, Nord being 105 and Midi 97½. Canadian Pacifics moved closely with dollar stocks and were 22½, compared with 23 a week ago.

Traffic Table and Stock Prices of Overseas and Foreign Railways

Railways	Miles open	Week ended	Traffic for week		No. of Week	Aggregate traffic to date			Shares or Stock	Prices			
			Total this year	Inc. or dec. compared with 1944/5		Totals		Increase or decrease		Highest 1945	Lowest 1945	July 30, 1946	
						1945/6	1944/5						
South & Central America	Antofagasta ... ..	834	21.7.46	£ 32,610	+ £ 3,530	29	£ 931,760	£ 885,130	+ £ 46,630	Ord. Stk.	12	8½	9½
	Arg. N.E. ... ..	753	20.7.46	ps. 344,200	+ ps. 25,800	3	ps. 912,200	ps. 925,400	- ps. 13,200	" "	10	5½	8
	Bolivar ... ..	174	June, 1946	3,692	- 948	26	25,836	30,275	- 4,439	6 p.c. Deb.	8½	5½	6½
	Brazil ... ..									Bonds	25	17	27
	B.A. Pacific ... ..	2,771	20.7.46	ps. 2,250,000	+ ps. 322,000	3	ps. 6,488,000	ps. 5,744,000	+ ps. 744,000	Ord. Stk.	7	5	8
	B.A.G.S. ... ..	5,080	20.7.46	ps. 3,605,000	+ ps. 444,000	3	ps. 10,247,000	ps. 8,960,000	+ ps. 1,287,000	Ord. Stk.	13½	10½	13
	B.A. Western ... ..	1,924	20.7.46	ps. 1,175,000	+ ps. 48,000	3	ps. 3,423,000	ps. 3,265,000	+ ps. 158,000	" "	12½	9½	16
	Cent. Argentine ... ..	3,700	20.7.46	ps. 3,165,400	+ ps. 154,050	3	ps. 9,163,115	ps. 8,759,250	+ ps. 403,865	" "	9½	7	9½
	Do. ... ..									Dfd.	5	2½	6
	Cent. Uruguay ... ..	970	21.7.46	33,302	- 3,755	3	105,562	108,533	- 2,971	Ord. Stk.	7½	4	8½
	Costa Rica ... ..	262	Apr., 1946	33,948	+ 5,306	43	286,820	231,946	+ 54,874	Stk.	16½	13	13
	Dorada ... ..	70	June, 1946	35,600	+ 1,820	26	186,275	182,375	+ 3,900	1 Mt. Deb.	103	102	102½
	Entre Rios ... ..	808	20.7.46	ps. 457,400	- ps. 15,600	3	ps. 1,222,900	ps. 1,298,800	- ps. 75,900	Ord. Stk.	7½	4½	7½
	G.W. of Brazil ... ..	1,030	20.7.46	24,300	+ 2,800	29	809,700	721,400	+ 88,300	Ord. Stk.	30½	23½	22½
	Inter. Ccl. Amer. ... ..	794	June, 1946	\$802,902	+ \$33,920	25	\$5,657,516	\$4,730,391	+ \$927,125	" "			
	La Guaira ... ..	22½	June, 1946	4,812	- 2,294	25	33,039	36,992	- 3,959	5 p.c. Deb.	78	70	60
	Leopoldina ... ..	1,918	20.7.46	62,135	+ 10,151	29	1,624,099	1,391,838	+ 232,261	Ord. Stk.	4½	3½	3½
	Mexican ... ..	483	31.5.46	ps. 1,464,000	+ ps. 459,100	21	ps. 18,661,800	ps. 13,441,600	+ ps. 5,220,200	Ord. Stk.	½	½	½
	Midland Uruguay ... ..	319	June, 1946	19,346	- 2,137	52	223,623	217,535	+ 6,088	" "			
	Nitrate ... ..	382	15.7.46	8,655	+ 4,219	28	119,287	95,916	+ 23,371	Ord. Sh.	75/6	67/6	82/6
	N.W. of Uruguay ... ..	113	June, 1946	5,098	- 350	52	66,462	67,138	- 676	" "			
	Paraguay Cent. ... ..	274	19.7.46	60,060	- 68,126	3	616,619	619,148	- 2,529	Pr. Li. Stk.	79½	77	73½
Peru Corp. ... ..	1,059	June, 1946	137,553	+ 12,587	52	1,675,574	1,554,661	+ 120,913	Pref.	10½	7½	15	
Salvador ... ..	100	May, 1946	c 123,750	+ c 11,750	44	c 1,517,450	c 1,420,000	+ c 97,450	" "				
San Paulo ... ..	153½	June, 1946	4,025	+ 230	52	41,020	35,700	+ 5,320	Ord. Stk.	60½	50½	52	
Taltal ... ..	156	20.7.46	2,198	+ 472	3	163,060	135,730	+ 27,330	Ord. Sh.	17½	10½	18½	
United of Havana ... ..	1,301	June, 1946	1,229	- 249	52	20,651	19,583	+ 1,068	Ord. Stk.	3	1	1½	
Uruguay Northern ... ..	73	June, 1946							" "				
Canada	Canadian National ... ..	23,569	June, 1946	7,900,750	- 2,013,500	26	46,539,250	53,467,250	- 6,928,000	" "			
	Canadian Pacific ... ..	17,037	21.7.46	1,291,750	- 273,500	29	38,797,750	43,446,250	- 4,648,500	Ord. Stk.	24	14½	22½
Various	Barsi Light† ... ..	202	May, 1946	21,465	+ 90	9	54,465	48,562	+ 5,903	Ord. Stk.	131	123	114½
	Beira ... ..	204	May, 1946	88,294	+ 11,733	32	597,258	613,138	- 16,060	" "			
	Egyptian Delta ... ..	607	23.7.46	16,292	+ 1,445	16	115,171	115,256	- 85	Prf. Sh.	10	8½	5
	Manila ... ..									B. Deb.	71	55½	69
	Mid. of W. Australia ... ..	277	May, 1946	20,041	+ 2,552	47	192,189	207,237	- 15,048	Inc. Deb.	97½	85	75
	Nigeria ... ..	1,900	May, 1946	326,207	+ 48,577	8	679,107	563,561	+ 115,546	" "			
	Rhodesia ... ..	2,445	May, 1946	548,881	+ 52,104	32	4,066,788	3,988,192	+ 78,596	" "			
	South African ... ..	13,301	15.6.46	1,085,901	+ 64,003	11	11,732,904	10,590,070	+ 1,142,834	" "			
	Victoria ... ..	4,774	Mar., 1946	1,301,609	- 2,195	—	—	—	—	" "			
										" "			

† Receipts are calculated @ 1s. 6d. to the rupee.